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U.S. Department of Agriculture

1985 BUDGET EXPLANATORY NOTES FOR COMMITTEE ON APPROPRIATIONS

23 70 963

FOREST SERVICE

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FOREST SERVICE MISSION

The Forest Service has overall national leadership and responsibility for forestry. The primary purpose of Forest Service programs is to achieve proper management and use of the Nation's forests, rangelands, and related research. The outputs from these lands include wood and paper products, oil, gas and other minerals, red meat, fish, wildlife, water, and a high quality environment for outdoor recreation and wilderness. All of these outputs are essential to the social and economic well being of the American people.

In carrying out its mission, the Forest Service has three major programs:

Forest Research

Forest Service research develops the knowledge and technology required to enhance the economic and environmental values of all the Nation's 1.6 billion acres of forest and related rangeland. The program seeks better ways to use the resources of our forests and rangelands through the development of technology to reduce costs, increase productivity, and protect environmental quality. Research covers an extensive range of subjects and is coordinated with research at 60 forestry schools and agricultural experiment stations at land grant institutions. The research also supports international forestry through cooperation with other United States agencies, the United Nations, and foreign countries.

State and Private Forestry

The cooperative programs of State and Private Forestry are designed to improve production of renewable natural resources on non-Federal forest lands. Financial assistance and technical expertise are provided to State forestry agencies. The State organizations in turn deliver technical assistance to nonindustrial private forest landowners and others. Federal technical assistance is usually offered in such areas as forest pest management, fire protection, forest and watershed management, forest products utilization, forest resources planning, and community forestry. The cooperative forestry programs support investments in the largely untapped productive potential of nonindustrial private forest lands by strengthening the State forestry organizations and their programs. Such lands total more than 284 million acres, or 57 percent of the Nation's commercial forest lands.

National Forest System

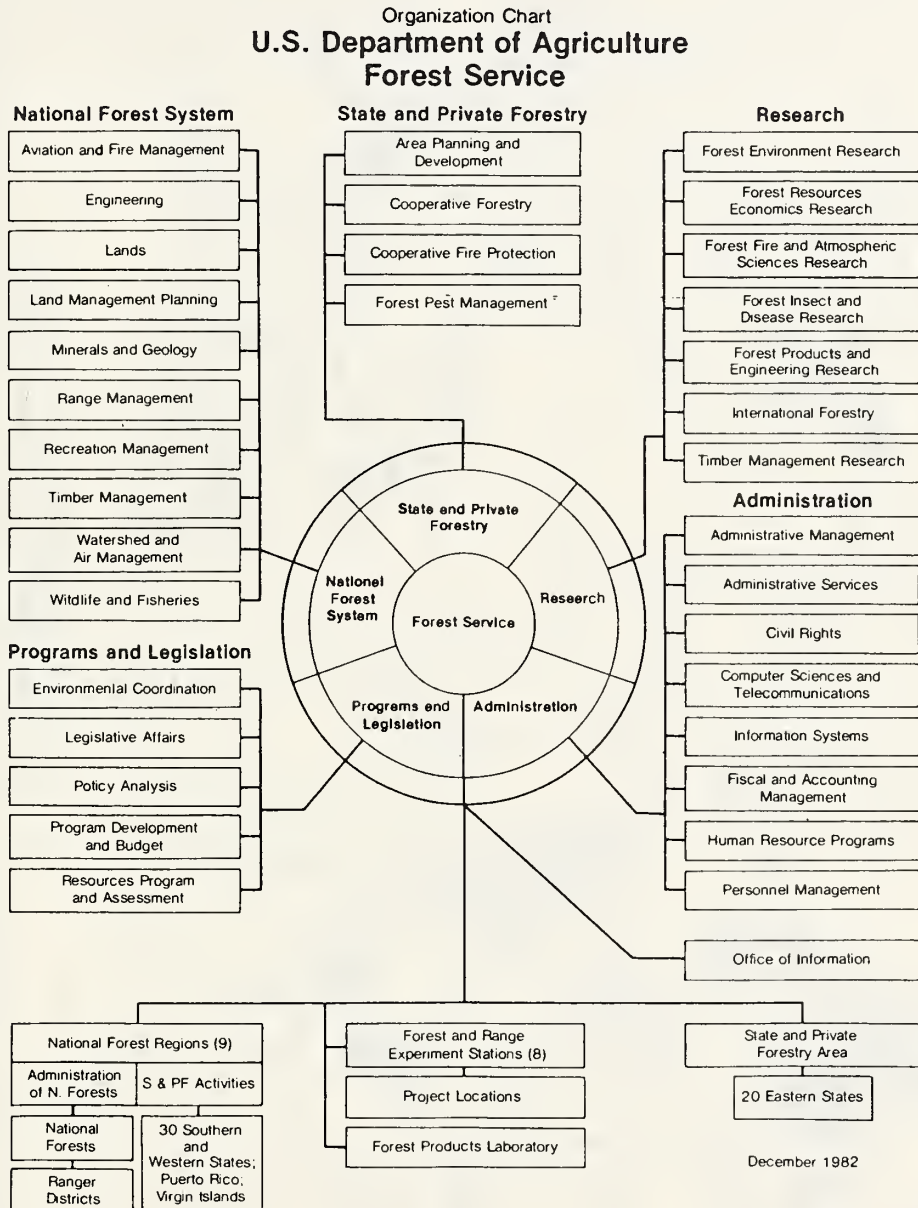
The National Forest System contains approximately 191 million acres of public land located in 44 States, Puerto Rico, and the Virgin Islands. These lands include 155 National Forests, 19 National Grasslands, and 17 Land Utilization projects. The lands contain valuable natural resources which are important to the social and economic well being of the American people.

The Forest Service manages the National Forest System under the multiple-use concept for sustained production of timber, forage, fish and wildlife, water, wilderness, and outdoor recreation. The minerals located on these lands also make a significant contribution toward helping the Nation meet the future energy needs through the exploration and development of coal, oil, gas, and geothermal resources.

ORGANIZATION

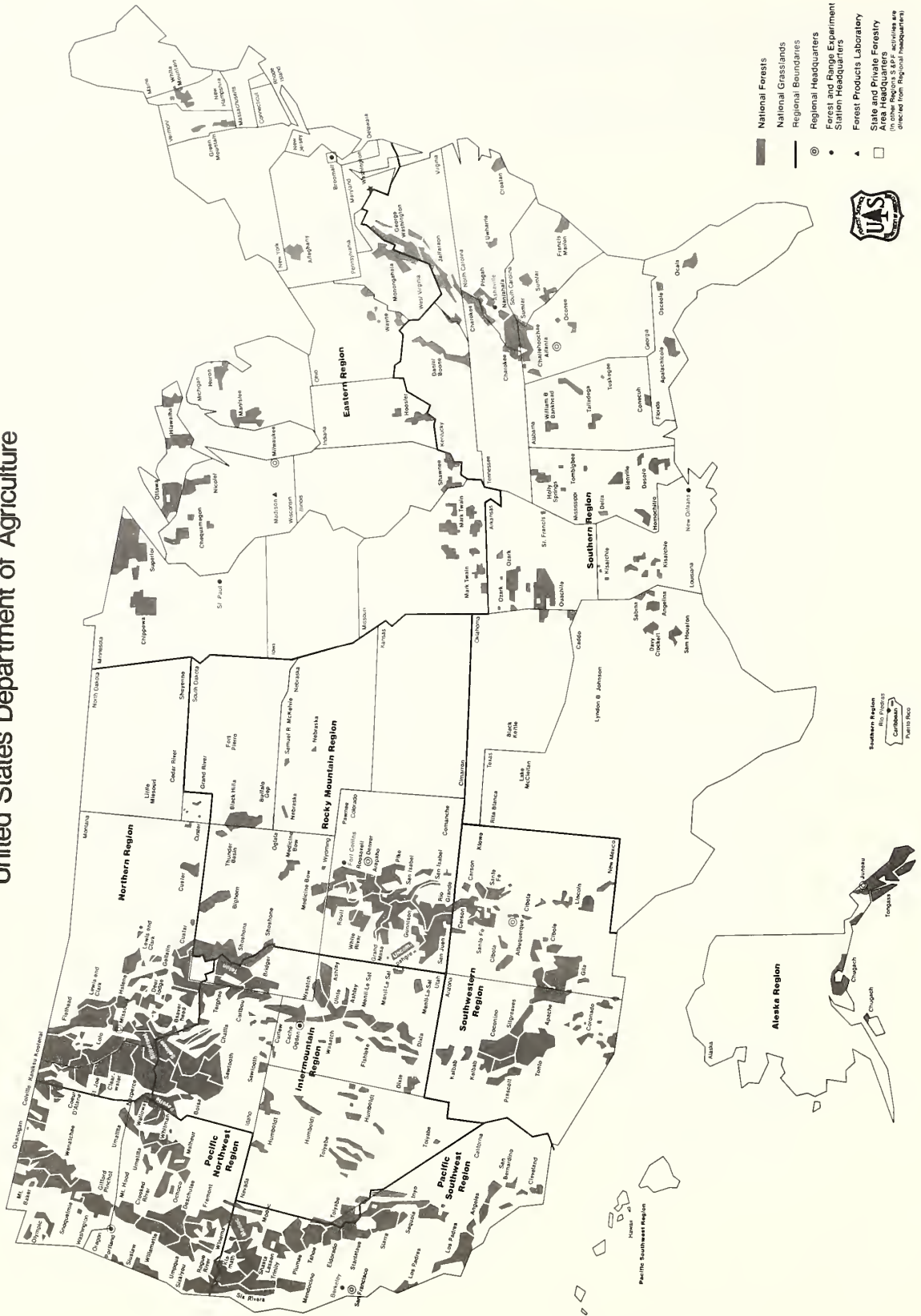
The Forest Service is a highly decentralized agency with approximately 98 percent of its personnel located in the field.

The following organizational chart and maps illustrate how the Forest Service is organized to carry out its programs.

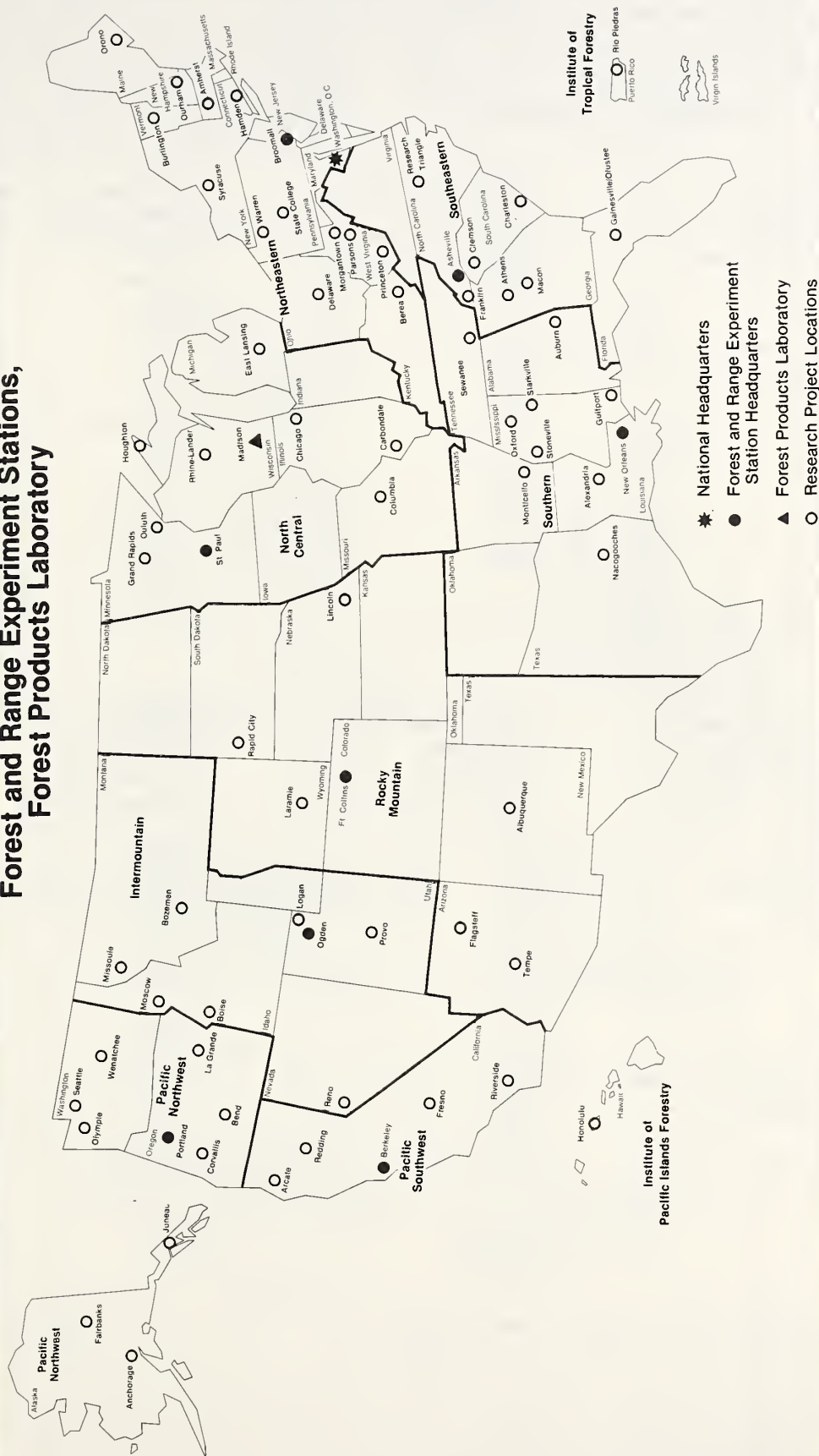


The Forest Service

United States Department of Agriculture



Forest and Range Experiment Stations, Forest Products Laboratory



Field Offices of the Forest Service

United States Department of Agriculture



REGIONAL HEADQUARTERS AND NATIONAL FORESTS

National Forests are listed by Region and State. Locations of National Forest headquarters are shown in boldface opposite their names. When writing to a Region, address your letter to the Regional Forester. When writing to a National Forest, address your letter to the Forest Supervisor.

Northern Region

Federal Bldg.
P.O. Box 7669
Missoula, MT 59807

Idaho

Clearwater	Orofino	83544
<i>Idaho Panhandle National Forests¹</i>	Coeur d'Alene	83814
Coeur d'Alene		
Kaniksu		
St. Joe		
Nezperce	Grangeville	83530

Montana

Beaverhead	Dillon	59725
Bitterroot	Hamilton	59840
Custer	Billings	59103
Deerlodge	Butte	59703
Flathead	Kalispell	59901
Gallatin	Bozeman	59715
Helena	Helena	59626
Kootenai	Libby	59923
Lewis and Clark	Great Falls	59403
Lolo	Missoula	59801

Southwestern Region

Federal Bldg.
517 Gold Ave. SW.
Albuquerque, NM 87102

Arizona

Apache-Sitgreaves ¹	Springville	85938
Coconino	Flagstaff	86001
Coronado	Tucson	85701
Kaibab	Williams	86046
Prescott	Prescott	86301
Tonto	Phoenix	85038

New Mexico

Carson	Taos	87571
Cibola	Albuquerque	87112
Gila	Silver City	88061
Lincoln	Alamogordo	88310
Santa Fe	Santa Fe	87501

Pacific Southwest Region

630 Sansome St.
San Francisco, CA 94111

California

Angeles	Pasadena	91101
Cleveland	San Diego	92188
Eldorado	Placerville	95667
Inyo	Bishop	93514
Klamath	Yreka	96097
Lassen	Susanville	96130
Los Padres	Goleta	93117
Mendocino	Willows	95988
Modoc	Alturas	96101
Plumas	Quincy	95971
San Bernardino	San Bernardino	92408
Sequoia	Porterville	93257
Shasta-Trinity ¹	Redding	96001
Sierra	Fresno	93721
Six Rivers	Eureka	95501
Stanislaus-Calaveras		
Big Tree ¹	Sonora	95370
Tahoe	Nevada City	95959

Rocky Mountain Region

11177 West 8th Ave.
P.O. Box 25127
Lakewood, CO 80225

Colorado

Arapaho-Roosevelt ¹	Ft. Collins	80521
Grand Mesa, Uncompahgre, and Gunnison ¹	Delta	81416
Pike-San Isabel ¹	Pueblo	81008
Rio Grande	Monte Vista	81144
Routt	Steamboat Springs	80477
San Juan	Durango	81301
White River	Glenwood Springs	81602

Nebraska

Nebraska-Samuel R. McKelvie ¹	Chadron	69337
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South Dakota

Black Hills	Custer	57730
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Wyoming

Bighorn	Sheridan	82801
Medicine Bow	Laramie	82070
Shoshone	Cody	82414

Intermountain Region

Federal Bldg.
324 25th St.
Ogden, UT 84401

Idaho

Boise	Boise	83702
Caribou	Pocatello	83201
Challis	Challis	83226
Payette	McCall	83638
Salmon	Salmon	83467
Sawtooth	Twin Falls	83301
Targhee	St. Anthony	83445

Nevada

Humboldt	Elko	89801
Toiyabe	Reno	89501

Utah

Ashley	Vernal	84078
Dixie	Cedar City	84720
Fishlake	Richfield	84701
Manti-LaSal	Price	84501
Uinta	Provo	84603
Wasatch-Cache ¹	Salt Lake City	84138

Wyoming

Bridger-Teton ¹	Jackson	83001
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Pacific Northwest Region

319 SW Pine St.
P.O. Box 3623
Portland, OR 97208

Oregon

Deschutes	Bend	97701
Fremont	Lakeview	97630
Malheur	John Day	97845
Mt. Hood	Gresham	97030
Ochoco	Prineville	97754
Rogue River	Medford	97501
Siskiyou	Grants Pass	97526
Siuslaw	Corvallis	97339
Umatilla	Pendleton	97801
Umpqua	Roseburg	97470
Wallowa-Whitman ¹	Baker	97814
Willamette	Eugene	97440
Winema	Klamath Falls	97601

Washington

Colville	Colville	99114
Gifford Pinchot	Vancouver	98660
Mt. Baker-Snoqualmie ¹	Seattle	98104
Okanogan	Okanogan	98840
Olympic	Olympia	98507
Wenatchee	Wenatchee	98801

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Revised January 1983

¹Two or more separately proclaimed National Forests under one supervisor.

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HIGHLIGHTS OF THE 1985 REQUEST

The changes between the 1984 programs and the 1985 request are highlighted below by appropriation.

Forest Research

The proposed budget for forest research is 5 percent lower than fiscal year 1984 appropriations. This decrease continues to reflect the President's overall objectives to improve efficiency and reduce costs by further streamlining the Forest Service research organization.

Significant actions planned in 1985 to help achieve these objectives include:

- terminating an additional 11 research work units
- closing two research locations
- reducing or delaying several areas of research
- improving efficiency of program management, support and administration

The 1985 program concentrates on research which will help improve the Nation's economic condition while maintaining an adequate level of protection for the natural resource base. The program includes emphasis on research to strengthen Federal action programs and international initiatives, and to serve critical consumer interests such as lumber standards and fire safety. Highest priority research will be maintained in the following areas:

- timber management and genetics
- protection of forests and rangelands from insects, diseases, and fire
- range, recreation, wildlife and fish habitat, mined area rehabilitation and watershed management
- forest products and harvesting
- forest economics and inventory and analysis
- acid rain
- old-growth wildlife habitats

State and Private Forestry

The proposed budget for State and Private Forestry (S&PF) is approximately 58 percent less than the fiscal year 1984 appropriation. Federal personnel requirements will be reduced by 20 percent.

This reduction in funding changes the Federal role in promoting management of forested lands in State and non-industrial private ownership. Instead of cost-sharing for various management and technology transfer activities, the Federal role will be limited to providing specialized technical assistance, national data collection, and information clearing house functions.

The primary emphasis of the proposed budget will be forest pest management on Federal lands, including a base level of surveillance and evaluation. High priority special projects, such as production of the Douglas-fir tussock moth virus, will be carried out under this program.

All financial grants to States will be discontinued except for the grant to Minnesota for intensive forest management associated with the Boundary Waters Canoe Area legislation. Small Federal staffs will be retained to provide the highest priority technical assistance and national data collection and analysis in Fire Protection, Forest Resource Management, Wood Utilization, Seedling Production, Nursery and Tree Improvement, Urban Forestry and Management Improvement.

National Forest System

The 1985 program proposes a decrease in the timber sale program from 11.7 billion board feet in 1984 to 11.2 billion board feet in 1985. This level will continue to provide the softwood sawtimber needed to respond to the housing market. In addition to these new sales, the 1985 timber sale program includes the resale of an estimated 200 to 400 million board feet of timber from defaulted contracts. It reflects planned funding for sale of 200 million board feet of timber from the Oregon and California Grant Lands administered by the Forest Service. The 1985 program is responsive to the demand for strategic and energy related minerals.

Road maintenance program funding has been increased to provide for public safety. Resource management activities, including recreation visits, hunting and fishing, and public access, in general, are being maintained or reduced. Administration of special uses will focus on the most critical needs. New applications will be processed in a timely manner in connection with projects that can produce increasing revenues; or, which are essential for public health and safety.

Construction

The road construction program will emphasize new access for timber sales with roads that respond to immediate project needs. Increased costs for a better road will be incurred only when such action clearly shows a favorable cost effective advantage. In keeping with the need to constrain Federal expenditures, only the highest priority projects for road reconstruction are being proposed.

Facilities construction will continue to focus on the abatement of high hazard health and safety deficiencies in research, recreation and fire, administrative and other facilities. Priority will also be given to facilities which support resource output and protection goals and increase fee receipts.

Forest Road Program (FRP) funds are used for work associated with planning, design, and construction of roads, including right-of-way acquisition, regardless of the funds used for the actual construction of the project. In 1985, about 13 percent of all road miles will be constructed from FRP and 87 percent from Purchaser Construction Program (PCP) and Purchaser Election Program (PEP). In addition, these FRP funds are used to augment Purchaser Construction where analyses have shown it to be more cost-effective to construct the road to a higher standard than that required of the immediate timber sale.

Forest Service Road Construction has changed significantly:

- For 1985 there is a continuing emphasis on funding from the Purchaser Construction Program. This emphasis will allow continuation of a balanced program in both roaded and unroaded areas. Since sale levels are based on the total timber resource (roaded and unroaded), more access into released roadless areas will be necessary to sustain a high timber output in the future.

- In the past 2 years, efforts to reduce unit costs of road construction have been productive. Further reductions in road standards or alignment will be made wherever feasible.

- Reconstruction of roads will be done only to protect the environment, correct unsafe road conditions, or achieve more economic transportation.

Land Acquisition

This appropriation was established by Congress in 1982, and includes land acquisition under the Land and Water Conservation Fund (L&WCF) and the Weeks Act.

L&WCF: Land and interests are acquired within the National Forest System for recreation, wilderness, endangered species, wildlife habitat management areas and other areas important for public outdoor recreation purposes. From 1965 through 1981, the L&WCF dollars were appropriated to the Department of the Interior for allocation to the appropriate agencies, including the Forest Service. In 1982, Congress appropriated the funds directly to the agencies. The 1985 budget request for the Forest Service is intended to cover the cost of closing existing cases and payment of the most critical pending court actions.

Management Initiatives

The Administration has undertaken a number of initiatives which are intended to improve the efficiency and reduce the cost of Government. Among the initiatives were the President's Private Sector Survey on Cost Control, Reform '88, and the Federal Field Structure Review which is being led by the Cabinet Council on Management and Administration. These, and related management improvement efforts sponsored by the Administration, have resulted in several specific actions currently planned or underway which will reduce spending in fiscal year 1985 and subsequent years. Some specific items are:

Administrative Support. As part of a Government-wide effort to reduce the cost of administrative support services, the Forest Service is proposing to combine services in several metropolitan areas where more than one Forest Service office is located. Services have been combined in Fort Collins, Colorado, for the Rocky Mountain Forest and Range Experiment Station and the Arapaho Roosevelt National Forest; in Portland, Oregon, for the Pacific Northwest Region and Pacific Northwest Forest and Range Experiment Station; and in Ogden, Utah, for the Intermountain Region and Intermountain Forest and Range Experiment Station. This is in addition to previous combinations established in prior years in Broomall, Pennsylvania, and Alexandria, Louisiana. Other studies are currently underway in the San Francisco area and in Asheville, North Carolina. In 1985, further studies of possible consolidation will be made. The 1985 budget reflects a savings of \$500,000 resulting from these changes in administrative support services. Future year savings are expected to increase to \$4.9 million annually.

Grade Reduction. The number of employees in grades GS-11 through GS/GM-15 appears to be excessive throughout the Government. Targets have been established to reduce the number of employees in these grades through attrition. The Forest Service will review positions at these grade levels as they become vacant throughout the year to determine whether the position(s) can be abolished or downgraded. Savings of \$1.9 million are included in the 1985 budget to reflect these savings. It is impossible to determine, in advance, where these savings might occur. Therefore, cost savings have been prorated throughout the budget line items which finance positions at these levels.

Printing Plants. As a part of a government-wide effort to reduce costs, all printing and duplicating plants throughout USDA in cities over 200,000 will be shut down and printing services obtained from the private sector. As a result, prior to the beginning of fiscal year 1985, the Forest Service will close its duplicating operations in the Regional Offices in Atlanta, Georgia; Denver, Colorado; Milwaukee, Wisconsin; San Francisco, California; and Portland, Oregon. In addition, it will also review the operation of the remaining plants in 17 other offices throughout the country. No dollar savings are projected because the cost of obtaining printing services from private sources is not yet known.

Commercial-Industrial Activities. The Forest Service operates approximately 86 activities which potentially could be performed by the private sector. Included are such activities as road and trail construction and maintenance, radio maintenance, automotive and heavy equipment repair, tree planting and timber stand improvement. During each of the next three years, the Forest Service will review one-third of these activities to determine whether the private sector can supply these services adequately, and at less cost to the Government. It is estimated that \$.5 million in cost reductions may result from these reviews in FY 1985.

Travel Offices. The Forest Service is discontinuing the travel service (for official travel) supplied to its employees in Atlanta, Georgia. A GSA approved Federal transportation management center will be used to make reservations and obtain tickets. The cost of this operation is \$27,000 annually, and the budget has been reduced accordingly.

The following program levels compare the 1984 appropriations enacted to date and the 1985 request:

<u>Appropriation</u>	<u>1984 Appropriation</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Inc. (+) or Dec. (-)</u>	<u>1985 RPA</u> <u>1/</u>
Forest Research \$	108,555	103,070	-5,485	217,706
FTE	2,434	2,306	-128	---
State and Private Forestry \$	60,579	25,505	-35,074	149,720
FTE	631	503	-128	--
National Forest System \$	975,519	1,036,959	+61,440	1,546,247
FTE	25,328	25,875	+547	---
Construction \$	251,724	253,898	+2,174	460,100
FTE	4,296	4,296	---	---
Land Acquisition \$	38,552	9,635	-28,917	170,310
FTE	84	74	-10	---
Permanent and Trust Funds \$	513,300	579,723	+66,423	792,363
FTE	4,757	4,587	-170	---
Reforestation Trust Fund..... \$	65,931	31,615	-34,316	---
FTE	1,208	587	-621	---
Other Accounts \$	5,199 <u>2/</u>	4,557	-642	13,180
FTE	100	88	-12	---
TOTAL \$	2,019,359	2,044,962	+25,603	3,349,626
FTE	38,838	38,316	-522	---
Transfer Accounts . FTE	1,412	1,184	-228	---

1/ This column reflects the RPA program levels which were projected for fiscal years 1981 to 1985. The difference between RPA and the 1985 Estimate reflects the need to hold down government spending and employment as well as various changes in the present situation from that anticipated and different policy choices.

2/ In 1984, the acquisition of lands for Winema National Forest (Oregon) totaling \$281,000 is included.

SUMMARY OF RECEIPTS

	1983 Actual	1984 Estimate	1985 Estimate
	(Dollars in thousands)		
National Forest Fund:			
Power	\$ 691	760	820
Minerals	17,064	17,000	18,000
Land Uses	2,733	2,900	3,200
Timber	388,601	900,947	1,122,997
Grazing	8,179	7,330	10,350
Recreation, Admission & User Fees	27,787	28,300	52,900 ^{1/}
Subtotal, National Forest Fund Receipts	445,055	957,237	1,208,267
National Grasslands and Utilization:			
Minerals	37,868	46,000	50,600
Grazing	2,000	1,200	1,500
Other	480	500	500
Total, National Grasslands	40,348	47,700	52,600
Timber Sale Area Betterment (KV)	173,092	118,000	120,729
Timber Purchaser Road Credit:			
On Budget	107,981	--	--
Off Budget	(45,222)	(174,000)	(196,000)
Subtotal, Timber Purchaser Road Credit	(153,203)	(174,000)	(196,000)
Subtotal, Amount Subject to Payments to States and Counties ^{2/}	811,698	1,296,937	1,577,596
Subtotal, Receipts	766,476	1,122,937	1,381,596
Brush Disposal	47,844	48,300	41,822
Timber Salvage Sales	14,106	12,775	16,055
Cooperative Contributions	35,561	32,000	32,541
All Other	7,922	11,000	11,000
Total Forest Service Receipts	871,909	1,227,012	1,483,014
Mineral and Power Leases on Public Domain Lands ^{3/}	78,011	63,220	68,420
Oregon and California Grant Lands ^{4/}	9,906	24,500	26,000
Total, Revenues Generated from lands managed by the Forest Service	\$ 959,826	1,314,732	1,577,434

^{1/} An estimated \$25,000,000 has been added subject to passage of proposed legislation.

^{2/} Payments to States is based on receipts from the National Forest Fund, National Grasslands, Timber Sales Area Betterment, and On and Off Budget Timber Purchaser Road Credit.

^{3/} Estimated revenues deposited to USDI.

^{4/} Deposited to USDI.

Summary of Work Units, Facilities and Locations

Planned For Closure During FY 1985

Research work units

Macon, Georgia	
Southeastern - 2110	Fire and Atmospheric Sciences Research
Southeastern - 2111	Fire and Atmospheric Sciences Research
Riverside, California	
Pacific Southwest - 2105	Fire and Atmospheric Sciences Research
Berkeley, California	
Pacific Southwest - 2299	Forest Insect and Disease Research
Durham, North Carolina	
Southeastern - 1119	Trees and Timber Management Research
Sewanee, Tennessee ^{1/}	
Southern - 1105	Trees and Timber Management Research
Durham, New Hampshire	
Northeastern - 1401	Trees and Timber Management Research
Columbia, Missouri ^{1/}	
North Central - 1109	Trees and Timber Management Research
North Central - 1701	Wildlife, Range, and Fish Habitat Research
Ft. Collins, Colorado	
Rocky Mountain - 1601	Forest Watershed Management and Rehabilitation Research
Logan, Utah	
Intermountain - 1751	Wildlife, Range, and Fish Habitat Research

Printing Plants

The following printing plants in Forest Service Regional Offices will be closed:

Atlanta, Georgia
Denver, Colorado
Milwaukee, Wisconsin
San Francisco, California
Portland, Oregon

Travel Office:

The travel office serving Forest Service employees in Atlanta, Georgia will be closed.

^{1/} Field location will be closed.

Statement of Expenditures and Receipts
(Dollars in millions)

<u>Item</u>	<u>FY 1983</u> <u>Actual</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>
Receipts and income from forest resources	766	1,123	1,382
All other income or receipts	106	104	101
Receipts Deposited to			
Department of the Interior (DOI)	<u>88</u>	<u>88</u>	<u>94</u>
Total	960	1,315	1,577
Expenditures	2,061	2,118	2,151
Less, Payments to State	-144	-204	-285
Less assets acquisition	-486	-499	-507
Plus depreciation <u>1/</u>	<u>169</u>	<u>174</u>	<u>176</u>
Net O&M costs	<u>1,600</u>	<u>1,589</u>	<u>1,535</u>
Total, receipts over expenditures	-640	-274	42

1/ Depreciation expense on roads, trails, other improvements, and equipment other than Working Capital Fund is included for the purpose of allocating asset depreciation costs to operating expense.

Three Year Summary of Appropriations

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 <u>Estimate</u>
FOREST RESEARCH	\$ 107,672	108,555	103,070
STATE AND PRIVATE FORESTRY	62,835	60,579	25,505
NATIONAL FOREST SYSTEM	1,010,264 ^{1/}	975,519	1,036,959
CONSTRUCTION	310,566	251,724	253,898
LAND ACQUISITION	63,077	38,552	9,635
ACQUISITION OF LANDS FOR WINEMA NATIONAL FOREST (OREGON)	---	281	---
ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS	753	780	782
ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGE	109	20	20
APPROPRIATED TRUST FUND.....	90	90	90
RANGE BETTERMENT FUND	5,378	4,028	3,665
PERMANENT APPROPRIATIONS, Working Funds:			
Expenses, Brush Disposal	47,844	48,300	41,822
Licensee Programs:			
Smokey Bear and Woodsy Owl	70	100	100
Restoration of Forest Lands and Improvements	214	100	100
Timber Purchaser Roads construc- ted by the Forest Service	44,900	50,475	33,903
Timber Salvage Sales	14,106	12,775	16,055
Tongass Timber Supply Fund	46,028	47,250	49,973
Subtotal, Working Funds	153,162	159,000	141,953
PERMANENT APPROPRIATIONS, Payments to States:			
Payment to Minnesota	711	711	711
Payments to Counties, National Grasslands	10,329	10,878	13,189
Payments to School Funds, Arizona	16	---	---
Payments to States, National Forests Fund	132,601	192,711	270,600
Subtotal, Payments to States	143,657	204,300	284,500
TOTAL, PERMANENT APPROPRIATIONS	296,819	363,300	426,453
TRUST FUNDS	169,937	150,000	153,270
REFORESTATION TRUST FUND.....	104,000	65,931	31,615
 TOTAL, FOREST SERVICE	 \$ 2,131,500	 2,019,359	 2,044,962

^{1/} Includes \$3.4 million appropriated to the Forest Service for the Youth Conservation Corps (YCC). The YCC appropriation also included \$3.3 million to the USDI, Park Service and \$3.3 million to the USDI, Fish and Wildlife Service.

FOREST RESEARCH

	<u>1983 Actual</u>	<u>1984 Appn. Enacted to Date</u>	<u>1985 RPA (Dollars</u>	<u>1985 Base in thousands)</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from '84</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Fire and Atmos- pheric Sciences Research \$	8,484	7,725	15,760	7,860	7,588	-137	-272
FTE	179	167	--	167	162	-5	-5
Forest Insect and Disease Research \$	21,577	21,983	40,089	22,319	20,586	-1,397	-1,733
FTE	416	420	--	420	392	-28	-28
Forest Inventory and Analysis . \$	12,337	12,031	24,684	12,258	11,528	-503	-730
FTE	282	279	--	279	270	-9	-9
Renewable Resources Economics Research \$	4,979	4,711	10,314	4,796	4,573	-138	-223
FTE	110	105	--	105	102	-3	-3
Trees and Timber Management Research \$	20,585	21,951	40,278	22,387	20,162	-1,789	-2,225
FTE	500	535	--	535	495	-40	-40
Forest Watershed Management and Rehabilitation Research \$	10,961	11,148	23,800	11,367	10,000	-1,148	-1,367
FTE	266	269	--	269	242	-27	-27
Wildlife, Range & Fish Habitat Research \$	8,706	9,093	20,405	9,257	8,367	-726	-890
FTE	194	202	--	202	186	-16	-16
Forest Recreation Research \$	2,146	2,068	6,713	2,108	2,013	-55	-95
FTE	52	49	--	49	48	-1	-1
Forest Products and Harvesting Research \$	17,897	17,845	35,663	18,176	18,253	+408	+77
FTE	416	408	--	408	409	+1	+1
TOTAL \$	107,672	108,555	217,706	110,528	103,070	-5,485	-7,458
FTE	2,415	2,434	--	2,434	2,306	-128	-128

Appropriation Summary Statement

RESEARCH MISSION

The mission of Forest Service Research is to develop the knowledge and technology required to enhance the economic and environmental values of all of America's 1.6 billion acres of forest and related lands. A new review of the Nation's renewable resources situation shows that the basic outlook continues to be a growing imbalance between the supply of forest, range, and water products, and the quantities that people would like to consume. Fortunately, the Nation is capable of producing three times as much forage and twice as much timber as it currently does now through intensive management, but we must also maintain land productivity and protect environmental quality. To help achieve these goals, Forest Service Research:

- Develops the scientific and technical knowledge needed for management of public land, about one-third of the Nation's land;
- Serves as an information reservoir for decisionmakers involved with national policy issues in forestry;
- Addresses short- and long-term problems in basic and applied research not dealt with by the private sector;
- Provides information and guidance for small private forest landowners, small businessmen, State agencies and commissions, and individual citizens; and
- Supports international forestry through cooperation with other United States agencies, agencies of the United Nations and foreign countries.

RESEARCH ADMINISTRATION

Forest Service Research is carried on through a network of eight Forest and Range Experiment Stations and the Forest Products Laboratory at Madison, Wisconsin. Many of the field headquarters and laboratories are located on or near university or college campuses. Research is conducted through about 215 research work units (RWU's) at 75 locations throughout the United States, Puerto Rico, and the Pacific Trust Islands.

The direction and focus of research is kept timely through continual review, evaluation, revision, and/or termination of RWU work plans at 5-year intervals. Intermediate reviews by Washington Office and field supervisors, with invited outside participants, also ensures that research is directed to timely problems. Based on these reviews, programs are often redirected within existing funding constraints to new areas of emphasis in response to changing national and regional priorities.

The research program is directed by the Deputy Chief for Research of the Forest Service. He is supported by seven Washington Office technical Staff Directors and Directors of the Forest Experiment Stations and the Forest Products Laboratory. The problem-solving capability is vested in approximately 850 scientists, who produced more than 2,000 scientific publications in 1983. About half of the Forest Service scientists hold doctoral degrees, and an additional 35 percent hold master's degrees.

In 1983, about 9 percent of the research budget supported cooperative research at colleges, universities, other research organizations, and industry. This effort complements in-house capabilities, fosters strong coordination among research organizations, and frequently provides a means of achieving goals without increasing the Federal work force. While privately financed research is proprietary for individual sponsors, Forest Service research results are made public and serve a broad clientele.

RESEARCH PLANNING

Forest Service research program planning is carried out in accordance with requirements of the Resources Planning Act (RPA) of 1974 and Title XIV of the Food and Agriculture Act of 1981. Long-range research is planned in conjunction with the Nation's 60 forestry schools. While some research is addressed at national laboratories, most is best undertaken at the regional level close to specific forest and rangeland problems.

Forest Service research at Experiment Stations and the Forest Products Laboratory (FPL) is aimed at the high-priority technology needs within four geographical planning regions (Northeast, North Central, Southern, and Western) and the FPL. For each planning region and the FPL, research goals are formulated by groups composed of research and resource managers in the Forest Service, Cooperative State Research Service (CSRS), forest industries, forestry schools, and agricultural experiment stations. Some goals may be similar among regions; others are unique to physical, biological, and social characteristics of individual regions or the FPL. National research program direction is forged primarily by analysis and aggregation of the regional plans and annual program budget submissions by the Experiment Stations and the FPL.

FY 1985 PROGRAM CHANGES

Since the beginning of FY 1983, the Forest Service has taken several actions to reduce costs by streamlining its research organization. For example, by the end of FY 1984 the following actions will be completed:

- termination of 25-30 research work units
- reduction of about 180 full-time equivalents since the end of FY 1982
- closure of 7 research locations

Additionally, research support services have been merged with National Forest Regional Offices at Portland, Oregon and Ogden, Utah. Support services also have been merged between the Rocky Mountain Station and the Arapaho and Roosevelt National Forest at Fort Collins, Colorado. Studies are underway to assess opportunities for further mergers.

A study has also been initiated to evaluate alternatives and develop a consistent process for expanding cooperative research relationships and active research participation with private industry and other interested parties. Recommendations from this study will be reviewed and made an operational part of research management at all Forest Service Experiment Stations and the Forest Products Laboratory.

The budget for forest research in fiscal year 1985 is 5 percent lower than the appropriation in fiscal year 1984. This decrease continues to reflect objectives to improve efficiency and reduce costs by further streamlining the Forest Service research organization. Further actions in FY 1985 include:

- terminate an additional 11 research work units
- close research locations at Sewanee, Tennessee and Columbia, Missouri
- reduce workforce by an additional 100-150 full-time equivalents

Planned FY 1985 actions are described in more detail under the appropriate budget activity.

CRITERIA FOR PROGRAM CHANGES

Decisions about program changes are guided by the following criteria and considerations:

- Relation of research programs to the mission/goals of the Administration, the Department of Agriculture and the Forest Service.
- Importance and timeliness of research problems, e.g., what difference will the research make if successful?
- Impact of the research, e.g., who will be affected if the research is successful and in what way?
- Availability of adequate personnel, funding, and leadership for the research program.
- Status of the research, e.g., is it nearing completion, can it be postponed?
- Research that is uniquely a Federal responsibility in terms of capability to strengthen Federal action programs and international initiatives.
- Research that is long range and high risk requiring coordinated planning, continuity of effort, and a stable research environment.
- Research serving critical consumer interests, e.g., lumber standards and fire safety.
- Research not undertaken by other institutions because of their narrower geographic focus and shorter term perspective.

BUDGET LINE ITEM REVISION

Budget line items for Research have been changed from last year's Explanatory Notes. The following table illustrates these changes:

Old Budget Line Items
(1984 Explanatory Notes)

New Budget Line Items
(1985 Explanatory Notes)

- | | |
|--|--|
| 1. Fire and Atmospheric Sciences Research (FASR) | 1. Fire and Atmospheric Sciences Research (FASR) |
| 2. Forest Insect and Disease Research (FIDR) | 2. Forest Insect and Disease Research (FIDR) |
| 3. Renewable Resources <u>name change only</u> Evaluation Research (RREv) | 3. Forest Inventory and Analysis (FIA) |
| 4. Renewable Resources Economics Research (RREc) | 4. Renewable Resources Economics Research (RREc) |
| 5. Surface Environment and Mining (SEAM) | 5. Timber Management Research (TMR) |
| 6. Timber Management Research (TMR) | |
| 7. Watershed Management <u>combination and name change</u> Research (WMR) | 6. Watershed Management and Rehabilitation Research (WMRR) |
| 8. Wildlife, Range, and Fish Habitat Research (WRFHR) | 7. Wildlife, Range, and Fish Habitat Research (WRFHR) |
| 9. Forest Recreation Research (FRR) | 8. Forest Recreation Research (FRR) |
| 10. Forest Products Utili- <u>combination and name change</u> zation Research (FPUR) | 9. Forest Products and Harvesting Research (FPHR) |
| 11. Forest Engineering Research (FEngR) | |

These revisions will reduce the number of line items and more accurately describe Forest Service Research programs and activities.

AUTHORITIES:

P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944
(7 U.S.C. 2250)
Section 703

Erect, alter and repair buildings necessary to carry out authorized work.

P.L. 89-106, Special Research Grants Act, August 4, 1965, (79 Stat. 431;
7 USC 450i)

Establishes authority for the Secretary of Agriculture to make research grants to state agricultural experiment stations, colleges, universities, and other federal and private research institutions and organizations. Basic and applied research grants are intended to further USDA programs.

P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act,
August 17, 1974, (88 Stat. 476, as amended; 16 USC 1601)

Directs the Forest Service to periodically prepare a long-range renewable resource assessment and program to ensure that the United States has an adequate supply of forest and range resources in the future while maintaining a quality environment.

P.L. 95-113, Food and Agriculture Act of 1977 (Title XIV), as amended by P.L. 97-98, December 22, 1981, (7 U.S.C. 1281 note and 7 U.S.C. 3221, 3291)

Provides for increased cooperation and coordination in the performance of agricultural research by Federal departments and agencies, the States, State agricultural experiment stations, colleges and universities, and other user groups (7 U.S.C. 1281).

Authorizes the Secretary of Agriculture to engage in certain activities related to international agricultural research and extension including to "assist the Agency for International Development with agricultural research and extension programs in developing countries."

The 1981 amendment emphasizes the importance of long-range planning for research, extension, and teaching and expands the purpose of the 1977 Act to include improving coordination and planning of research, extension, and teaching and to ensure that results are communicated and demonstrated to farmers, processors, handlers, consumers, and all other users.

It also added two new responsibilities to this section of the 1977 Act that designates USDA as the lead agency of the Federal Government for agricultural research, extension, and teaching by (1) requiring coordination with the RPA Assessment and Program, and the Appraisal and Program of the RPA, and (2) overcoming barriers to long-range planning by developing "a long-term need assessment for food, fiber, and forest products, and by determining the research requirements necessary to meet the identified needs."

P.L. 95-307, Forest and Rangeland Renewable Resources Research Act, June 30, 1978, (92 Stat. 353; 16 U.S.C. 1641 et. seq.)

Updates, clarifies, and consolidates current forest and range research authorities that rested principally in the McSweeney-McNary Act of 1928; provides a specific forest and rangeland link to Title XIV of the 1977 Farm Bill, the National Forest Management Act of 1978 (NFMA), and the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA); provides competitive grant authority; and expands authority for foreign research cooperation.

P.L. 95-495, Act of October 21, 1978, 92 Stat. 1649
Sections 5(d), 6(c) (1-2), 11(f), 18(e), and 19

Establishing the Boundary Waters Canoe Area Wilderness and Boundary Waters Canoe Area Mining Protection Area.

Authorization: Section 6(c) (2) \$3,000,000 additional for grants to the State for resource management activities.
Section 6(d) (1) \$8,000,000 for resource management on the Superior National Forest.
Section 5(d), 11(f), 18(3), and 19 such sums as necessary.

P.L. 96-487, Act of December 2, 1980, Alaska National Interest Lands Conservation Act.

Sections 101-103, 501-507, 703-708, 1201-1203, 1301-1328

Authorization: Section 705 (a) not less than \$40,000,000 annually
Section 705 (b) \$5,000,000 annually

Such sums as are appropriated by Congress. No expiration date specified.

Fire and Atmospheric Sciences Research

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Total	\$	8,484	7,725	7,860	7,588	-272
	FTE	179	167	167	162	-5

Objective: To develop improved methods to: (1) prevent wildfires and control them once started; (2) reduce loss of life, property, and forest resources from fire; (3) reduce wind and weather-related losses of forests; and (4) use prescribed fire to achieve forest and range objectives at reduced cost.

Program description: Fire can be destructive or beneficial. Uncontrolled wildfires burned about 3.5 million acres during the last half of the 1970's, at an average yearly control cost of \$620 million besides loss of life, property, and forest resources estimated at over \$1 billion. During the same period, prescribed fire saved \$85 million as an alternative to other methods of hazard and residue reduction, site preparation, and habitat improvement. Reducing wildfire losses and increasing prescribed fire benefits requires technical knowledge of how weather, terrain, and vegetation combine to determine fire behavior. The Forest Service forest fire and atmospheric science program is the principal research effort in the United States dedicated to supplying this knowledge.

Forest Service scientists develop methods to determine the likelihood of fires starting, to estimate the time and location of fire occurrence, and to predict fire behavior. The goal is continued safe and efficient fire control with lower personnel costs. Investigators are developing guidelines to determine the impacts of prescribed fire. They are also developing guidelines to meet air quality standards and smoke management requirements of regulatory agencies so that prescribed fire can substitute for herbicides, mechanical equipment, and hand labor in manipulating undesirable forest vegetation. Firefighting is expensive, and researchers are developing methods to balance costs against potential damages, and find ways to help managers analyze alternatives. These efforts have helped reduce costs and are expected to reduce them still more. Examples of recent accomplishments are described below:

Fire Behavior Can Be Predicted

Can wildland fire behavior really be predicted? According to fire behavior scientists at the Intermountain Station, it depends on how accurate you expect the answer to be. The minute-by-minute movement of a fire will probably never be predictable--certainly not from weather conditions forecasted many hours before the fire. Nevertheless, they say, practice and experienced judgment in assessing the fire environment, coupled with a systematic method of calculating fire behavior, yields surprisingly good results.

The Intermountain Station has published a manual, "How to Predict the Spread and Intensity of Forest and Range Fires," the result of many years of fundamental and applied research. It includes methods of assessing the major factors influencing fires and simplified methods of calculating rate of spread, fire intensity, fire size, and spotting distance. It contains maps of fire growth and guides for interpreting and informing others about expected fire behavior.

Information in the manual has been used to train fire behavior officers in all of the Nation's land management agencies, including many States.

More Efficient Fire Appraisal System Developed

Funds could be allocated more efficiently in a fire management budget if managers could measure the economic impact of wildfires more comprehensively than in the past. Because fires have different impacts on each product and amenity of wildlands, it has been difficult for fire managers to put a prefire value on these resources. North Central Station scientists, in cooperation with Michigan State University and the Wisconsin Department of Natural Resources, have now developed a system of appraising wildfire effects for private land that strikes a balance between comprehensiveness and ease of use.

The system incorporates positive, as well as negative, economic impacts of fires on timber, wildlife, recreation, ornamental trees, crops, equipment, and improvements. In addition, esthetic and environmental values are rated on a relative scale. Although the system incorporates many variables, only a few field measurements are required. Many complex factors such as stumpage prices, wildlife loss or benefit, and recreation values are precalculated for each county. Although the system is comprehensive, it takes a manager less than 30 minutes to complete the appraisal for an average fire.

The system is operational in Wisconsin and is currently being evaluated for possible use throughout the Northeast. Because it is correct in theory, consistent in appraisal, and easy to use, the system is a step toward cheaper and more effective fire management.

Computers Used In Lightning Location And Fire Forecasting

To detect lightning fires in the West, spotter aircraft presently fly a fixed pattern over forested areas at considerable cost. Recently, the Intermountain Station developed a computer system called "Lightning Location and Fire Forecasting" (LLAFFS) that indicates the probable locations of fires after lightning storms. The system will save considerable money by narrowing the search zone and reducing the time flown by spotter aircraft after a storm.

The system goes into action as the lightning strikes are occurring, sorting data from thousands of lightning strikes, and calculating the condition of the forest fuels in the path of the storm (Figure 1). Results are displayed on a computer printout. Using the printout and a transparent map overlay, fire dispatchers can determine areas where fires are most likely to start and send spotter aircraft right to them.

LLAFFS has already been tested by the Forest Service and the Bureau of Land Management and is expected to be in operation by the summer of 1984.

<u>Decrease for 1985:</u>	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Decrease</u>
Fire and atmospheric sciences research \$	7,860	7,588	-272
FTE	167	162	-5

A decrease of \$272,000 will result in a combination of actions to: (1) combine units to reduce costs; (2) concentrate research effort on the highest priority problems; and (3) accelerate closeout of nearly completed work. These actions include:



Figure 1.

Scientists have developed a computer system to indicate the probable location of fires started by lightning.

- Combine work units at Macon, Georgia, on prescribed fire, smoke management and smoke chemistry. Research essentially complete will be terminated and disseminated. No new research will be initiated, but some redirection of current research will occur. The units planned for termination are:

SE-2110 (Macon, Georgia) Combustion Processes in Wildland Fuels

SE-2111 (Macon, Georgia) Fire Science Adaptations for the Southeastern United States

- Complete some aspects of retardant evaluation research and terminate suppression productivity research at Missoula, Montana.
- Terminate the fire prevention research at Riverside, California. The economic evaluation of prevention programs will be assigned to another research work unit and accelerated. The unit planned for termination is:

PSW 2105 (Riverside, California) Principles, Techniques and Systems for Prevention of Man-Caused Fires.

- A savings of \$8,000 is associated with improved efficiencies in administrative support activities and \$2,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

In summary, these actions will result in the closure of three work units and initiation of one new work unit.

Object class information:

Salary and benefits.....	-158
Travel	- 10
Transportation of things	- 3
Rent, communications and utilities	- 18
Printing and reproduction	- 3
Supplies, materials and equipment	- 24
Other contractual services	- 56
Total	-272

Forest Insect and Disease Research

	1983 Actual	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Total	\$ 21,577	21,983	22,319	20,586	-1,733
FTE	416	420	420	392	-28

Objective: Provide technology to optimize productivity, value, and usefulness of the resources of forests and associated rangelands; and to protect wood in use and in storage by preventing or reducing damage caused by insect and disease pests.

Program description: The Forest Insect and Disease Research Program provides the necessary means to:

- Define, measure, and evaluate the economic, social, and environmental impacts of destructive insect and disease pests on all forest resources and on wood in storage and use.

- Detect, assess, and predict changes in the distribution and abundance of pest populations.
- Reduce or stabilize pest populations to acceptable levels using control techniques and management strategies that are ecologically sound, economical, and environmentally safe.

This research provides landowners with strategies to reduce losses from insect and disease pests. Current damage from forest pests include: (1) an average annual timber mortality of 2.4 billion cubic feet (19 million cords); (2) 21 million acres of insect defoliation in 1982; (3) 35 million acres of disease infestation in 1982; (4) over \$1 billion annually to repair damage and protect wood products from termites, other wood-destroying insects, and fungi.

The scope of this research covers all major groups of forest insect and disease pests. A partial list includes bark beetles, defoliating insects, cone and seed insects and diseases, wood products insects and decay organisms, root rots, rust diseases, canker diseases, diebacks and declines, and acid rain. Techniques are being developed to aid tree establishment and growth by using specialized fungi that grow in intimate contact with tree roots (mycorrhizae) and aid in uptake of soil moisture and nutrients. Information is being sought on the effects of air pollution on trees and forests, including effects on growth and yield, flowering and seed production, and establishment and survival of new plantings. Emphasis is placed on preventing damage through the use of environmentally safe integrated pest management (IPM) concepts that include use of cultural and biological control tactics. Examples of recent research follow:

Sawfly Virus Is Registered With EPA (Environmental Protection Agency)

The European pine sawfly has been a minor but recurring pest of red and Scotch pines in the northern United States. Christmas tree and municipal watershed plantings have been a frequent target of this insect. It can be controlled by a nucleopolyhedrosis virus (NPV), a naturally occurring disease organism that spreads rapidly through sawfly populations.

Research at the Northeastern Station, in cooperation with several universities, state and private forestry specialists, and Canada, culminated in registration of the virus product by the Environmental Protection Agency in 1983 for use by the Forest Service. The registered product has been given the name "Neocheck-S".

The virus is highly virulent in sawflies and environmentally safe--one reason why it is in demand by watershed managers. It is highly effective at very low dosages and inexpensive to produce and use. Unlike a chemical insecticide, it has the advantage of spreading through the sawfly population after it is applied. Conventional ground or aerial equipment can be used to apply the virus in formulations that do not require special protectants or additives other than "stickers"--commonly used substances that keep the virus from washing off tree needles in a rain.

New and Cheaper Ways Found to Control Walnut Root Rots

Root rot boosts the cost of producing walnut seedlings by more than \$4 per thousand, or 17 percent of total production costs. For States that grow large numbers of walnut seedlings, these additional costs are significant.

Cooperating researchers at the North Central Forest Experiment Station, Purdue University, and Virginia Polytechnic Institute and State University, have found that five different fungi are responsible for walnut seedling root rots. Scientists at these institutions have developed a guide for nursery managers that describes walnut root rot symptoms and shows managers how to identify the fungi that cause the diseases (Figure 2).



Figure 2.

Walnut seedlings show good growth and survival on a well-drained sandy loam nursery soil that was selected to minimize imperfect moisture drainage and development of root rot disease.

The guide also recommends cultural, biological, and integrated controls that could be less expensive than chemical suppression. One example is the use of raised seedling beds to promote good drainage and avoid conditions that favor root rots. Recommendations in the guide are being used by nursery managers in the Midwest to increase walnut seedling production and reduce costs.

Guidelines Developed to Protect Log-Kit Homes From Beetles and Decay

Log-kit construction of homes is a new and growing billion-dollar industry. However, studies of recently constructed homes turned up frequent cases of wood-infesting beetles and decay problems, including fungus fruiting bodies on major structural components (Figure 3). Scientists at the Southern Station and Mississippi State University have undertaken extensive research on how to prevent beetle and decay attacks. The researchers came up with measures that owners should take to guard against insects and decay. These begin with choosing building designs and log shapes that do not trap moisture. Manufacturers should debark logs immediately after harvest, and follow with a 3-step system that includes log drying and application of preservatives to protect against beetles and mold or mildew fungi. The guidelines end with maintenance regimes that log-kit owners themselves can take at 4- to 5-year intervals to protect their investment in a home.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Forest insect and disease research \$	22,319	20,586	-1,733
FTE	420	392	-28

A decrease of \$1,733,000 will result in a combination of actions to: (1) concentrate research effort on the highest priority problems, and (2) accelerate closeout of nearly completed research. These actions include:

- Closeout integrated pest management (IPM) research in California. The unit conducting this research was established in 1973 to develop IPM concepts for use in forest insect and disease research. Because the IPM concept is now firmly entrenched in all FIDR units, the research being done in this unit is no longer essential and these resources will be redirected to other high priority research involving development of technology to safely and efficiently reduce insect impacts on forested lands. The unit planned for termination is:

PSW-2299 (Berkeley, California) Pest Management Systems

- Reducing the overall FIDR program in a number of programs nationwide. Included is the interior Alaska program of insect research, an effort dealing with insects which affect regeneration in the West, diseases of shrubs, Dutch elm disease, Gypsy Moth, and beetles of southern pines. Resources remaining within each of the affected units will be used to support other high priority research needs.
- A savings of \$6,000 is associated with improved efficiencies in administrative support activities and \$22,000 is associated with a phased reduction of positions in grades GS/GM 11-15.
- Estimated funding distribution by major pest or problem for 1984 and 1985 is as follows:



Figure 3.

Two common problems in many log-kit homes: a severe beetle infestation indicated by holes made as adult beetles emerge and numerous entry points for moisture that will contribute to decay.

FOREST INSECT AND DISEASE RESEARCH

<u>Pest or Problem</u>	<u>FY 1984 Estimate</u>		<u>FY 1985 Estimate</u>	
	(Dollars in thousands)	(%)	(Dollars in thousands)	(%)
Gypsy Moth	2,881	(16)	2,650	(14)
Diseases and insects of high value plantations <u>1/</u>	2,830	(16)	3,038	(16)
Regeneration insects and disease	2,401	(14)	2,644	(14)
Major rust, canker, foliar, and root diseases	2,000	(11)	2,184	(11)
Other important conifer & hardwood insects and disease	1,855	(10)	2,119	(11)
Protection of Wood	1,311	(7)	1,398	(7)
Spruce budworms	1,112	(6)	1,399	(7)
Other bark beetles	1,107	(6)	1,166	(6)
Southern pine beetle	899	(5)	899	(5)
Mycorrhizae	721	(4)	823	(4)
Douglas-fir tussock moth	660	(4)	755	(4)
Live oak wilt	<u>186</u>	<u>(1)</u>	<u>212</u>	<u>(1)</u>
Total	17,963	(100.0)	19,287	(100.0)
Insects	(11,496)		(12,343)	
Diseases	(6,467)		(6,944)	
CANUSA <u>2/</u>	2,146		--	
IPM RD&A <u>3/</u>	<u>1,399</u>		<u>1,124</u>	
Total accel.	3,545		1,124	
TOTAL, Forest Service	\$21,508		\$ 20,411	
Reimbursed to CSRS:	475		175	
(CANUSA)	(300)		(--)	
(IPM-SPB)	(175)		(175)	
APPROPRIATION TOTAL	\$21,983		\$ 20,586	

1/ Includes research on insects and diseases of urban forests and Great Plains plantings, insecticide development for high-value plantings and biological control of weeds. Major insects and disease pests include diebacks and declines, Dutch elm disease, hardwood borers, sucking insects and sawflies and range shrub diseases.

2/ CANUSA represents the Canada-United States Spruce Budworm Program.

3/ IPM-SPB represents the RD&A Program on Integrated Pest Management of Southern Pine Beetles.

In summary, these actions will result in the termination of one research work unit.

Object class information:

Salary and benefits	- 886
Travel	- 56
Transportation of things	- 13
Rent, communications and utilities	- 115
Printing and reproduction	- 17
Supplies, materials and equipment	- 103
Land and structures	- 11
Other contractual services	- 506
Grants, subsidies and contributions	- 26
Total	-1,733

Forest Inventory and Analysis

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars	1985 Base in thousands)	1985 Estimate	Inc.(+) or Dec.(-) from Base
Total	\$ 12,337	12,031	12,258	11,528	-730
FTE	282	279	279	270	-9

Objective: To provide comprehensive, continuing information about the analyses of the characteristics of forest land resources of the United States.

Program description: Periodic inventories are conducted to ascertain trends in extent, condition, ownership, quantity, and quality of the Nation's forest resources. The data and analyses developed provide technical information about timber, wildlife habitat, forage production, and other resource characteristics needed for State and national resource planning. Information is also used in the private sector by companies and individuals who invest in forestry and timber processing facilities.

Forest inventory and analysis research also conducts studies to monitor the harvest and use of timber by the forest products industry. Data on pulpwood production are collected and reported annually. Statistics on other forest industries are reported with each completed State survey. Research determines present and prospective national consumption of wood products by major end-uses, and relates these requirements to national timber supply.

Collectively, these comprehensive analyses of the supply and demand for timber from the Nation's forest lands provide the basis for developing public and private forestry policies to assure a continuing supply of timber and other forest products. Efficient forest inventory and data analysis techniques to maintain a cost-effective program are developed through research at regional work units and at two national projects located in Colorado. Examples of recent accomplishments are described below:

Home Fuelwood Consumption Has Increased Rapidly

A Forest Service survey confirms woodburning in home stoves and fireplaces is now greater than at any time since World War II. In 1981, Americans burned four or five times more fuelwood than 10 years ago.

The Forest Products Laboratory, aided by the University of Wisconsin Survey Laboratory, sampled U.S. households to learn about residential fuelwood consumption. They found that fuelwood use was 42 million cords or 3 to 4 billion cubic feet in 1981, an unexpectedly large gain over previous estimates. This was one-fourth of the amount used for all other wood products. In the East, 95 percent of fuelwood was from relatively abundant hardwoods. In the West, 42 percent was from hardwood.

Most of the fuelwood was cut by household members. Thirty percent was cut from urbanized and other non-forest land areas. Fuelwood cut from forest land was salvaged mostly from dead or down trees and logging residue. Only 28 percent of the fuelwood came from standing live trees. The estimated value of fuelwood sold commercially to households was \$620 million in 1981.

Hardwood Stands in the Piedmont Can Be Managed Less Expensively

Hardwood management in the South has received far less attention than pine management. Often, the management approach has been to eradicate hardwoods and convert the site to pine.

The high cost of stand conversion has sparked a reexamination of hardwood management--especially for hardwoods owned by nonindustrial private forest landowners. Income for these owners typically comes solely from the sale of standing timber or cut products in the forest.

Is better hardwood management feasible? Researchers at the Southeastern Station analyzed information collected on the hardwood lands of woodland owners in the Piedmont Region stretching from Virginia to Georgia. The analysis covered more than 28 million acres of hardwoods. The researchers looked at size classes of timber as well as opportunities for both silvicultural treatments and improved regional marketing.

The analysis showed that hardwood stands in the Piedmont can be managed under treatment regimes that are neither expensive nor intensive. By using guidelines from this analysis, Piedmont woodlot owners can minimize out-of-pocket treatment costs, increase income from timber harvest, and upgrade the future stands. The guidelines should also prove valuable to State forestry agencies, extension foresters, and other who are concerned with forestry programs in the Southeastern Piedmont Region.

Huge Resource Inventory Is Underway in Alaska

A new inventory system is being used in Alaska to survey the natural resources on 32 million acres of the eastern Tanana River Basin in interior Alaska, an area as large as Alabama. The four-phase system was developed by the Pacific Northwest Station.

The system uses imagery from satellites, small scale and large scale aerial photography plots, and a newly-developed field plot system (Figure 4). In addition to data on timber volume, growth, and mortality, the survey will gather information on vegetation composition, density, productivity, biomass, wildlife habitat, potential fire fuels, and soils. A general vegetation and soils map for the Tanana Basin is being produced by the Soil Conservation Service working in cooperation with the Forest Service.

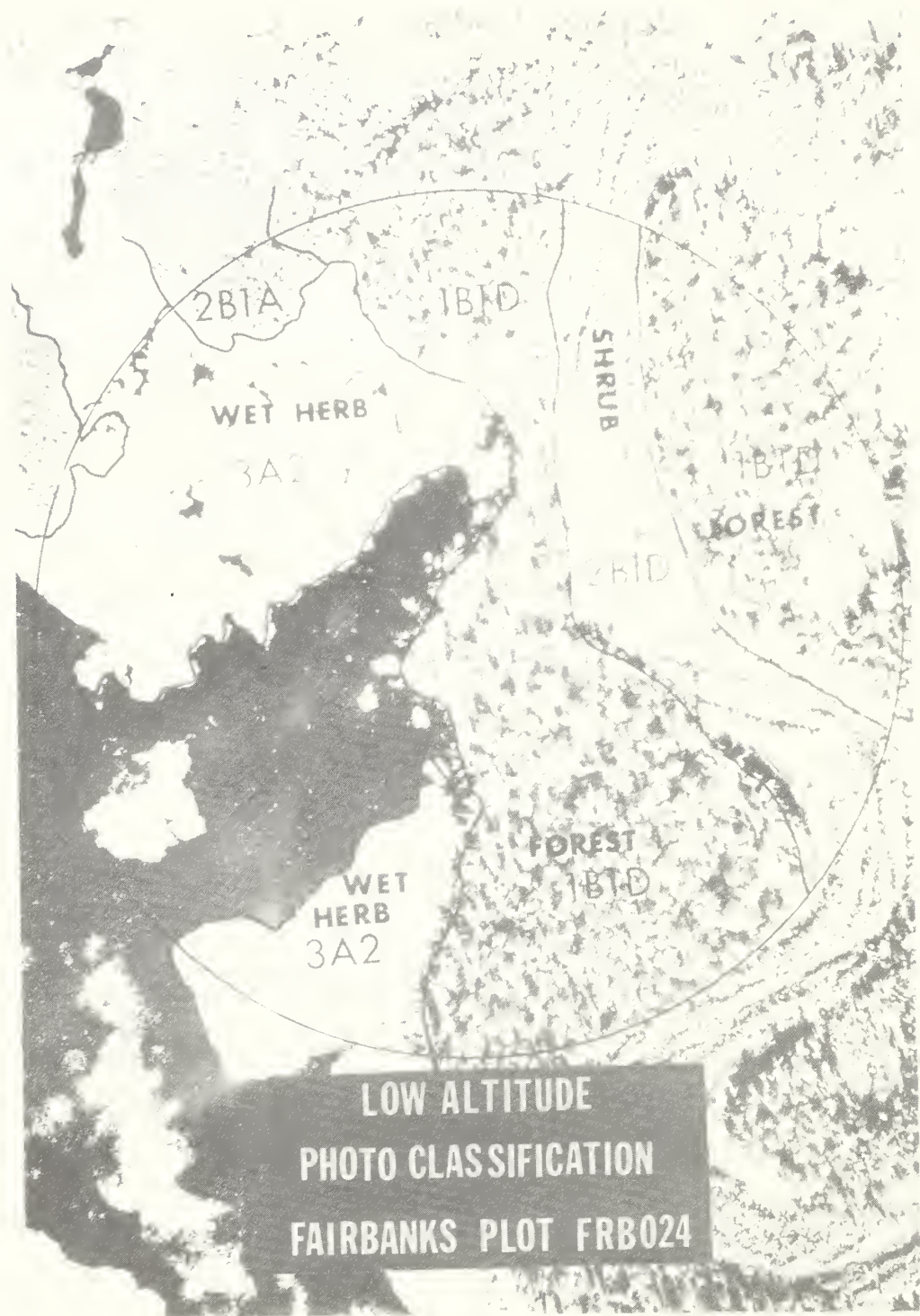


Figure 4.

A type map display of the Large Scale (1:3,000) Photography vegetation classifications for plot FRB 024 of the 30+ million acre Tanana River Basin multiresource inventory in Alaska.

The 14-million acre western Tanana Basin was surveyed in 1982, and the data are already being used by Federal, State, and private agencies in Alaska. The data will help the Forest Service meet the requirements of the Resource Planning Act for a national inventory of renewable natural resources.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Forest inventory and analysis			
research	\$ 12,258	11,528	-730
FTE	279	270	-9

A decrease of \$730,000 provides for the continuation of forest inventories and analyses, but will result in the following:

- A slowing down of the pace of the forest land inventories in all regions of the Nation, and continue to lengthen the reinventory cycle beyond its current 13 years.
- Timber resources analyses will be emphasized and less analysis made for other nontimber land values.
- A savings of \$3,000 is associated with improved efficiencies in administrative support activities and \$13,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-249
Travel	-73
Transportation of things	-6
Rent, communications and utilities	-49
Printing and reproduction	-9
Supplies, materials and equipment	-60
Other contractual services	-240
Grants, subsidies and contributions	-44
Total	-730

Renewable Resources Economics Research

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
(Dollars in thousands)					
Total	\$ 4,979	4,711	4,796	4,573	-223
FTE	110	105	105	102	-3

Objective: To provide economic methodology and analyses for forest and rangeland situations and for related forest product distribution systems. This research undergirds a variety of public and private forest land policies and investment decisions.

Program description: Studies are conducted to:

- Provide public and private forest owners and managers with methods for economic analyses of natural resources management choices.
- Provide forest managers with concepts and procedures to evaluate multiple output trade-offs on public and private lands.
- Analyze present and future forest product demands, values, and international trade patterns.
- Evaluate the economic feasibility of emerging product and processing technology for wood utilization.

Recent accomplishments are described below:

Predicting Forest Stand Losses to Gypsy Moth Is Being Improved

Gypsy moth is one of the most challenging problems facing forest managers in the Northeast today. People attempting to cope with the pest need help in predicting and evaluating its impacts so they can decide whether to try control efforts and where to concentrate them.

Some techniques for predicting forest stand losses to gypsy moth have already been developed by the Northeastern Station in cooperation with State and Private Forestry, Northeastern Area. These include the use of easy-to-measure stand characteristics. Typical of the models is an equation for estimating the rate of change in timber value for forest stands exposed to an outbreak. The important stand measurements are easily taken by a forest manager--percent of tree species that the gypsy moth tends to avoid, percent of trees 3.0 to 4.9 inches diameter, and percent of trees with poor crowns.

Impacts could become more serious as the pest spreads south and west into forests where oaks are more common and timber quality is better. In an attempt to measure impacts, scientists have installed some 600 field plots in advance of gypsy moth infestation in the heart of Pennsylvania's oak country. Besides learning whether these stands have a greater potential for economic loss, researchers will be able to refine existing models for better prediction of the insect's impact.

Model Assists In Assessing The Economic Impacts of Increasing Timber Supply

A timber supply model developed by the Pacific Northwest Station will assist forest economists in assessment of changes in the availability of timber needed to produce goods and services in forest-dependent areas. Using data from Douglas County, Oregon, the research contrasted the effects of importing logs versus increasing local timber supply from National Forests. They found, for example, that the economic impacts to Douglas County from increasing the supply of local Forest Service timber far surpassed the economic benefits of importing logs from other areas. They also compared the effects of capital funds flowing into or out of the area.

This economic model can provide a more thorough analysis of the consequences of existing or proposed public forest management policies than has previously been possible.

Predicting Costs of Wildlife and Recreation Practices

The cost of protecting or improving nontimber resources--such as wildlife and recreation--are being increasingly questioned. To judge whether these activities are cost effective, forest managers must be able to accurately assess or predict the costs of wildlife and recreation practices (Figure 5).

As a first step toward this goal, researchers from the Intermountain Station tackled the job of determining the costs of the many wildlife and recreation activities in the Forest Service's Northern Region. They developed estimates and models to predict what wildlife management practices cost, especially those for improving habitat. For example, costs ranged from as low as 5 cents per acre for fence maintenance to over \$400 per acre for structures to help maintain fish spawning beds.

To obtain recreation costs, researchers sampled more than half the sites existing in the Northern Region in 1980. From the samples models were developed to predict the annualized costs of different sized facilities. With a better idea of how to predict cost of these wildlife and recreation activities, forest managers in the Northern Region can get the most out of their budget dollars.

The Outlook for Renewable Resources

A new review of the Nation's renewable resource situation, completed as a part of the work underway to prepare a Forest Service program for submission to Congress in 1985, shows that the basic outlook continues much the same.

For timber this means continuing increases in the prices of standing timber and timber products and the associated adverse impacts on the economy, the environment, and society. The outlook for water and range forage is similar in many respects. For users of wildlife, fish and outdoor recreation resources, it will mean intensifying competition for the available resources.

This may well lead to shrinking populations of wildlife and fish, fewer and less satisfying outdoor recreation experiences, and overall, a gradual reduction in the quality of life that people have come to appreciate and expect.

The new review shows that this outlook is not inevitable. There is a very large forest, range, and water base that can supply demands for nearly all products if it is more intensively managed and better utilized.

For example, these lands and waters have the physical capacity to supply sites for most types of outdoor recreation well in excess of expected increases in demands and to support much larger wildlife and fish populations. Under intensive management, rangelands have the capacity to produce nearly three times more forage and forest lands and more than twice the volume of timber grown today.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Renewable resources			
economics research\$	4,796	4,573	-223
FTE	105	102	-3



Figure 5.
Scientists have developed models to predict the annual costs of many recreation activities in the Forest Service's Northern Region.

A savings of \$1,000 is associated with improved efficiencies in administrative support activities and \$15,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

Salary and benefits	-98
Travel	-12
Rent, communications and utilities	-17
Printing and reproduction	-2
Supplies, materials and equipment	-14
Other contractual services	-80
Total	-223

		1984 Appropriation			Inc.(+) or Dec.(-)	
		<u>1983 Actual</u>	<u>Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>from Base</u>
(Dollars in thousands)						
Total	\$	20,585	21,951	22,387	20,162	-2,225
	FTE	500	535	535	495	-40

Program description: The Forest Service expects long-term national demand for wood fiber, especially softwood, to increase, while a decreasing forest-land base, declining volumes of western old growth, losses to insects and diseases, and environmental constraints will tend to reduce available timber for harvest. More timber must, therefore, be produced on fewer acres to meet demands without raising real prices. Achieving higher productivity from forest lands depends upon the development of economical and environmentally acceptable forest management practices. Much of the Eastern forests are in nonindustrial private ownerships, where the regeneration of cutover stands to desired species (e.g., loblolly pine in the South), the control of unwanted vegetation, and the improved use and management of high-value hardwoods offer major challenges to the manager. On public and other large western ownerships, the principal challenges are to harvest and regenerate the "old growth" efficiently and convert brush fields and other nonstocked areas to conifers. Multi-resource management practices that focus on timber, wildlife, water, and range production objectives are needed by all classes of landowners and managers.

Timber management research ensures that the information and technology necessary to achieve full productivity are developed and promptly made available. The program focuses on development of cost-effective and reliable regeneration strategies to improve the growth, quality, and composition of developing stands; genetic selections for rapid tree growth, high quality and resistance to forest pests; and computer models that predict the growth and yield of forest stands as a basis for management and investment. Basic research is conducted to understand the physical, biological, and genetic factors that control the development of individual trees and forest stands. Examples of recent accomplishments are described below:

Prospect Is Good for Increasing Loblolly Pine Growth Through Seed Selection

The potential for increased plantation yields through seed source selection in loblolly pine is clearly demonstrated by research reported in two Southern Station publications. Forest managers generally use local seed sources of loblolly pine for planting west of the Mississippi River as they have in other areas. Two large seed source studies in southern Arkansas, established by the Southern Station and industrial cooperators in the 1950's, now show that trees from most non-local seed sources grow faster than those from the local source. Maladaptation of non-local sources is possible, but after 25 years there is no evidence of poor adaptation in any but the most southern, Gulf Coastal sources. Loblolly from the Atlantic Coastal Plain look particularly good in southern Arkansas, averaging 8 feet taller than local source, and the yield is about 25 percent greater (Figure 6).

Forest managers in southern Arkansas and Northern Louisiana must carefully weigh this prospective gain against the possibility of future maladaptation locally. Weyerhaeuser Company has been the first to announce a decision to use non-local loblolly pine seed from the North Carolina Coastal Plain on their Arkansas-Oklahoma land holdings. If they obtain a similar 25 percent growth increase, it will amount to a gain of about 1.5 billion cubic feet of wood over a 35-year rotation.

New Guides Improve Thinning of Shortleaf Pine

Immature shortleaf pine stands must be thinned to grow large diameter trees quickly. Traditionally, thinning intensity is controlled by basal area (the area of a breast-high cross section of all the trees in a stand). Basal area alone, though, is not a good indicator of stand stocking and thinnings controlled by basal area may often leave a stand understocked. When crop tree thinnings are made, the number and spacing of crop trees are often selected without regard for future stand stocking.

Thinning guides for shortleaf pine, recently developed by North Central Station scientists, provide managers with a new and effective tool to control thinnings. The guides are in the form of stocking charts that graphically define the relationships among basal area, number of trees, and average tree diameter. The guides are based on research that defined the growing space requirements of shortleaf pine and are independent of stand age and site quality. The format used for the stocking chart has recently been adopted for use throughout the National Forest System.

Reducing Impacts of the Western Spruce Budworm Through Silviculture

The western spruce budworm is the most widely distributed and destructive defoliating insect of true fir, Douglas-fir, and spruce forests in the West. In the Northern Rockies alone, it has persisted for 35 years on more than 10 million acres, substantially reducing the region's ability to meet demands for timber and other resources. Past use of insecticides has only temporarily reduced budworm populations. Insecticide use has not changed the course of the regional outbreak, or significantly reduced the problem.



Figure 6.

Loblolly pine trees at 25 years - Oklahoma trees on the left and South Carolina coastal plain trees on the right.

In addition to evaluating past suppression efforts with chemical insecticides, Intermountain Station scientists have investigated the biology and ecology of the budworm and have appraised the alternatives to the use of insecticides. They have better defined insect-host-stand relationships and have developed equations predicting topkill, mortality, height growth, and regeneration vigor.

The findings indicate that the best long-term approach to reduce the impact of the budworm is through intensive silviculture--to create tree and stand conditions less favorable to the budworm and more favorable to the establishment and early development of vigorous young stands (Figure 7). Guidelines developed by Station scientists are being used by managers to select silvicultural prescriptions that integrate the management of the budworm with sound forest practices.

New Methods Result In Cheaper Kudzu Control and Eradication

Kudzu is an imported vine that has spread over millions of acres in the South. First established on depleted farmland for erosion control and cattle grazing, this rapidly spreading pest now grows in forests, halting most wood production on infested lands. Kudzu is one of the few plants in the world that can stop natural plant succession and forest development (Figure 8). The commonly used method of eradication costs about \$150 per acre, which has discouraged any concentrated control programs except on large industrial forests. Kudzu is exceedingly difficult to control due to large, woody roots that may require several herbicide applications over a 4- to 10-year period. Without adequate control, the vine will continue to hamper tree growth on more and more productive forest lands.

Cooperative research among the Southern and Southeastern Stations, State forestry agencies, Auburn University, and forest industry has come up with new herbicide treatments and application procedures that cost less--from \$75 to \$120 per acre. New procedures recommend liquid herbicides that can be applied by nonindustrial private forest landowners using farm-tractor sprayers. New procedures are still being developed, but many recommendations are already available.

To spread word about the new treatments, signs, giving treatment, number of applications, and costs have been placed at study areas along major highways. Field days have been held in Georgia and Alabama counties to show landowners how to control this pest. Response has been good because the new treatments are both cheap and environmentally acceptable.

Conifer Yields Increase After Weeds Are Controlled

Dramatic gains in stem volume of Douglas-fir and ponderosa pine following use of chemicals to control weeds at the time of planting are reported by scientists at the Pacific Northwest Station. Seven herbicides and two combinations of herbicides were sprayed, using a backpack sprayer, on grasses and forbs competing with trees.

Benefits, just discernible at 3 years after planting, were increasing exponentially by the end of the 6th year. Volume increases on sprayed areas ranged from 349 to 650 percent higher than on areas that did not have the one-time application of chemicals. Especially effective for reducing competition from weeds were hexazinone and a mixture of dalapon and atrazine.

Few herbicides are registered in forestry for controlling grasses and forbs, however, and fewer still are really effective. Demonstration and publication of the research showing the effectiveness of the two herbicides has led to widespread interest by forest managers. They plan to use these herbicides for preparing planting sites to get better conifer growth besides reducing mortality from competition and moisture stress.



Figure 7.

Even-aged silvicultural systems, such as this seed tree cut in Montana, greatly reduce forest and stand susceptibility to western spruce budworm. Vigorous, fast-growing seral conifer regeneration is favored, creating poor habitat for the budworm.

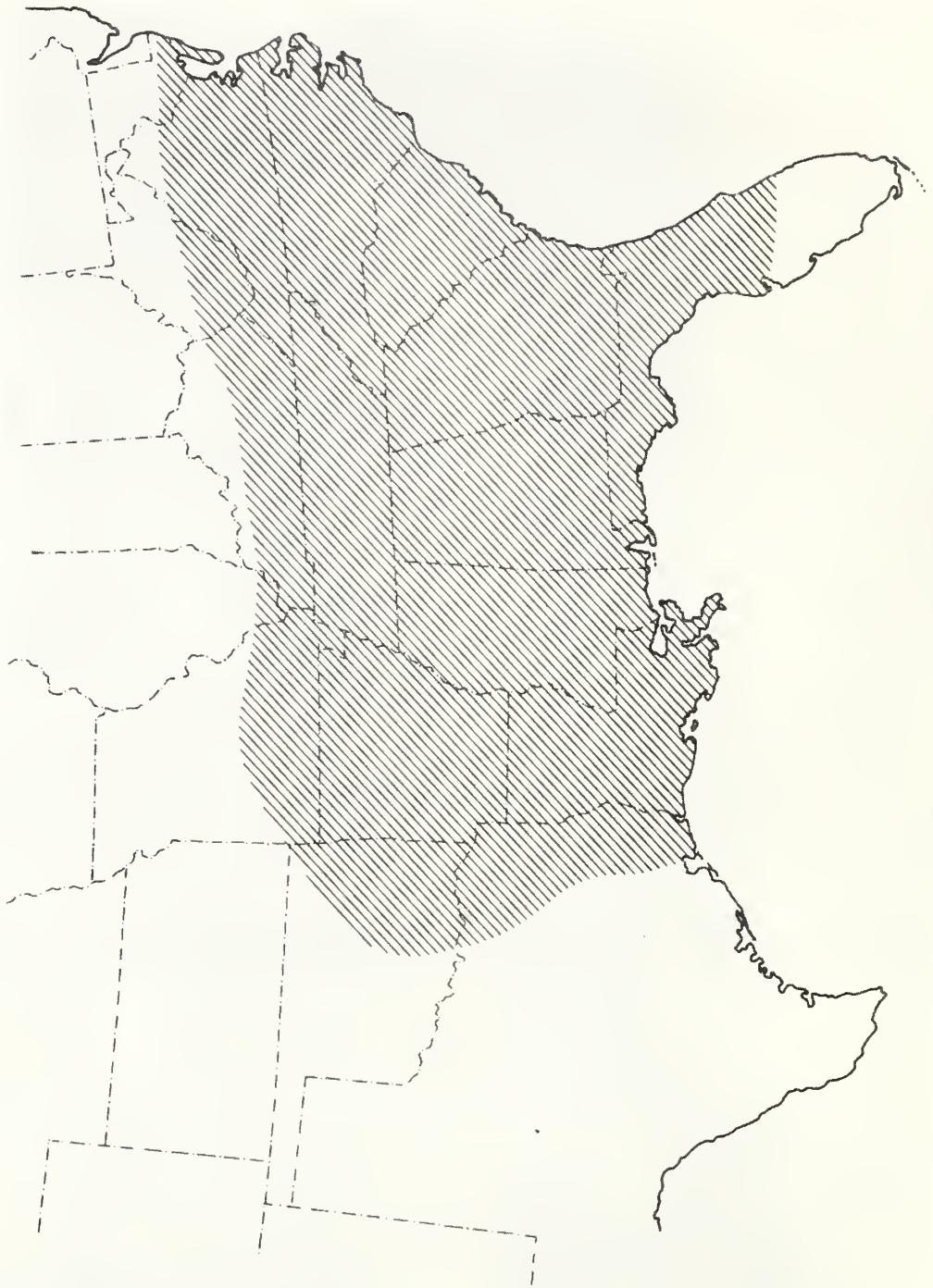


Figure 8.

Kudzu currently has captured over 2 million acres of forest and agricultural lands in the South, extending the range from the Atlantic and Gulf Coasts to mid-Kentucky and West Virginia and westward to Oklahoma and Texas. The range is rapidly spreading southward through Florida.

Developing Future Forests Through Genetic Engineering

Although genetic engineering has been applied to date only to selected microorganisms and herbaceous plants, genetic engineering has direct application to an array of basic research problems in forestry. Conventional tree breeding methods to increase growth, wood quality and resistance to insects and diseases are hindered and even prevented by serious reproduction barriers that prevent the exchange of desirable traits between tree species. With appropriate genetic engineering methods such barriers may be overcome. For example, certain tree species can fix nitrogen, but others can not. With the rapid advances in recombinant DNA research of the last six years the basic tools for applying this new science to forestry is both feasible and possible. Existing methodology will need to be modified and new techniques developed that are suitable for the unique problems associated with forest trees.

To meet these challenges the Forest Service started a genetic engineering program in FY 1983. This research consisted of preparing comprehensive problem analyses, work plans, and initiating cooperative research studies in two priority areas:

- (1) Non-sexual methods for tree breeding, including protoplast and nuclear fusion technology.
- (2) Individual heritable traits (Single gene or gene complexes) and recombinant DNA methodologies for transfer of genes in forest tree species.

These first studies are directed toward identifying basic methodology that will have direct application in the improvement of a large number of different tree species of the United States.

In FY 1984, the Forest Service accelerated its genetic engineering research program as a result of congressional action which earmarked \$700,000 for this purpose.

Forestry Intensified Research (FIR) Program in Southwestern Oregon Continues to Yield Results

An estimated 1 million acres of productive forest land in southwest Oregon are classified as very difficult to harvest or regenerate using today's technology. Diverse conditions cause difficulties in applying silvicultural practices, road building, and logging; and special care must be taken to ensure adequate restocking. Because of harvesting and reforestation problems, over 200,000 acres of Federal land have been removed from the timber base with a loss of timber sale benefits.

In 1978, a cooperative 10-year research program was initiated to speed development and implementation of reforestation and stand management technology crucial to southwest Oregon. The Forestry Intensified Research Program (FIR) is divided into two interrelated phases: (1) the Adaptive Research and Technology Transfer phase and (2) the Fundamental Research phase. The Adaptive phase, now in its fifth year, is designed to apply existing knowledge and technology to southwest Oregon conditions. The fundamental phase is directed at unsolved problems and information gaps. It is jointly funded by the Forest Service and Bureau of Land Management. Several dozen studies are undertaken in any one year by scientists from the Pacific Northwest Forest and Range Experiment Station (PNW), Oregon State University (OSU), and other cooperating institutions. Research is conducted on reforestation systems, site classification, young stand management, tree improvement, and growth prediction.

Microbiologists from the PNW have tested mycorrhizal fungi as a means of improving conifer seedling survival on harsh sites. These beneficial fungi coat the roots of conifer seedlings, thereby increasing the seedlings' ability to survive. In outplanting trials conducted this far, true fir seedlings inoculated with a local strain of Pisolithus have shown increased survival at several field sites.

PNW researchers have also documented the adverse influence of brush competition in young conifer plantations of southwest Oregon. Heights and diameters were 1.5 and 2.8 times larger, respectively, for treated Douglas-fir seedlings than untreated controls.

Related research in vegetation management enables scientists at OSU to predict brush development following logging. This information is being used by foresters to anticipate where tan oak and madrone are likely to interfere with conifers if these species are not controlled.

Physiologists at OSU have recently found differences in the level of cytokinins, a special class of plant hormones, between reproductive and vegetative shoots of Douglas-fir. These results suggest the cytokinins may play a role in inducing cone formation on mature trees. Additional work is needed, but the research could lead to methods for increasing cone production in seed orchards, or for predicting years when cone set will be high in natural stands.

Completion of the 10-year FIR research program is expected to pay large dividends on Federal forest lands. Technology to harvest and reforest the Federal lands removed from the timber base could produce direct annual benefits from timber sales of more than \$50 million. Similar benefits could accrue on other currently nonproductive public and private forest lands. For example, conversion of the 429,000 acres of brushfields and nonstocked areas on forest industry lands to a timber-producing condition could add 55 million cubic feet of softwood timber per year, worth an estimated annual stumpage value of \$72.6 million. Application of intensive cultural practices to new forests throughout southwest Oregon could increase stand growth by one-third or more.

Forest Service and BLM funding for 1983 and 1984 and estimated funding in 1985 are:

	<u>1983</u>	<u>1984</u>	<u>1985</u> <u>Estimated</u>
	(dollars in thousands)		
Forest Service	\$ 1,000	\$ 1,020	\$ 900
Bureau of Land Management	960	960	960
Total	<u>\$ 1,960</u>	<u>\$ 1,980</u>	<u>\$ 1,860</u>

The State of Oregon and private companies also provide financial support for the FIR Program.

Decrease for 1985:

	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Decrease</u>
Timber management			
research \$	22,387	20,162	-2,225
FTE	535	495	-40

A decrease of \$2,225,000 will allow for: (1) concentrating research effort on the highest priority problems, and (2) accelerating closeout of research near completion. These actions include:

- Closeout research on ways to structure ecological knowledge to facilitate silvicultural decisions and actions for managing forests. Work on a computer program to simulate multiple-use alternatives is essentially complete and is ready for transfer to users. Funds from this one-scientist unit will be used to strengthen higher priority research in pine and high quality hardwood silviculture. The unit planned for termination is:

SE-1119 (Durham, North Carolina) Biological Potential for Timber Production

- Closeout research on low quality hardwood management in the Cumberland Plateau-Highland Rim region. Research to develop silvicultural guides and site evaluation criteria has been completed. The unit is relatively isolated from major research centers and the lack of funds will reduce the staff below a critical level. The research staff and responsibility for remaining high priority research will be assigned to the Research Work Unit at Auburn, Alabama. The unit planned for termination is:

SO-1105 (Sewanee, Tennessee) Integrated Resource Management in the Cumberland Plateau Region

- Closeout research on genetics of Northeastern trees. The most productive opportunities for genetics research in the Northeast--hybrid poplars and the pitch x loblolly pine hybrid--have been exploited. Experimental sugar maple plantations will be maintained and records of older studies with hybrid poplars and weevil-resistant white pines will be available to cooperators. Research on the hybrid pine will be continued at an appropriate level. The unit planned for termination is:

NE-1401. (Durham, New Hampshire) Genetic Improvement of Northeastern Trees

- Closeout research on the silviculture and ecology of oak-hickory forest ecosystems. Much of the research to develop regeneration systems and cultural techniques for oak-hickory forests in the North Central Region has been completed and is available to user groups. Historically important research installations will be maintained. Responsibility for remaining research will be reassigned to other hardwood research work units in the North Central Station. The unit planned for termination is:

NC-1109 (Columbia, Missouri) Silviculture and Ecology of the Oak-Hickory Forest Ecosystem

- Reduce research on genetics of trees in interior Alaska, selection strategies for development of superior southern pines, improvement of shelterbelt trees, and seed orchard management; basic research on DNA synthesis; soil productivity and site quality for loblolly pine; fertilization and thinning of western larch and lodgepole pine; difficult sites in southwestern Oregon (FIR); management of West Coast conifers and silviculture of Ozark-Ouachita forests; and analysis of forest management practices in the West.
- Terminate research on gum naval stores; eucalyptus; genetics of jack pine and the culture and genetics of white oak and white ash in the Lake States; and the interaction of timber management practices on wildlife habitat in the loblolly-shortleaf pine-hardwood forests of the South.
- A savings of \$6,000 is associated with improved efficiencies in administrative support activities and \$22,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

In summary, research will be completed or closed out in four research work units and two locations (Sewanee, Tennessee and Columbia, Missouri) will be closed.

Object class information:

Salary and benefits	-1,243
Travel	- 92
Transportation of things	- 23
Rent, communications and utilities	- 162
Printing and reproduction	- 23
Supplies, materials and equipment	- 190
Other contractual services	- 492
Total	-2,225

Forest Watershed Management and Rehabilitation Research

	1983 <u>Actual</u>	1984 Appropriation Enacted <u>to Date</u>	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc.(+) or Dec.(-) <u>from Base</u>
					(Dollars in thousands)
Total	\$ 10,961	11,148	11,367	10,000	-1,367
FTE	266	269	269	242	-27

Objective: To develop and test economical and effective methods for protecting, managing, and improving forest and rangeland watersheds; and for rehabilitating lands disturbed by mining activities.

Program description: This research identifies methods to help planners and managers meet long-term water quality and flow needs and evaluates effects of surface mining activities on forest and rangelands resources and on the users of these resources.

Each year forests and rangelands in the contiguous 48 states yields about 1.3 billion acre-feet of water. This yield can be increased through improved vegetation- and snow-management techniques now being developed and transferred to users. Current studies determine means and costs to increase water yields in water deficient areas, as well as watershed treatments to reduce flood losses. About 175-million acres of our land are flood prone, and better runoff control from flood sources and reduction of flood hazards downstream is needed. The effects of acid rain on vegetation, soils, and aquatic habitats also are being determined. Appropriate land management strategies or treatments to mitigate these effects are being evaluated for cost and effectiveness.

Watershed management research is providing ways to improve water yield from forest and rangeland by managing blowing snow and manipulating vegetative cover to reduce evapotranspiration. Methods are being sought to improve water quality from forest and rangeland by reducing erosion and stabilizing flows from disturbed sites such as gullied land or abandoned mine land. New technology is being developed to reduce nonpoint water pollution through improved fire protection, road design and construction, and land management practices. Forest lands produce about 65 percent of the total streamflow. So much of our forest and rangeland would benefit from watershed maintenance and improvement practices.

The Forest Service manages 191 million acres of National Forest System lands, some of which overlay mineral deposits. For example, approximately 50 billion tons of coal are under about 6.5 million acres of National Forest System land. About 45-million acres have potential for oil and gas, and some 300,000 acres have phosphate potential. About 85 percent of National Forest System land is open to exploration and extraction of nonrenewable resources. To support these activities, research develops, tests, and demonstrates new techniques to plan mining operations, alleviates the impact of mining on forests and rangelands, and restore mined areas promptly to productivity. Examples of recent accomplishments are described below:

Regional Differences in Causes of Acid Rain Found

Before ways to control acid rain are developed by United States and Canada, its sources and causes must be better understood. The chemicals that fall from the atmosphere in rain and snow vary greatly, depending on their source and the type of storm. Researchers at the North Central and Northeastern Stations are learning that there are important regional differences in the cause of acid rain.

In north central Minnesota, alkaline dust from the arid West sometimes neutralizes the acid (or hydrogen ions) in the rain. Scientists in the North Central Station have developed a method to separate "dusty" rain samples from "clean" ones (the dusty ones only contain 10 percent of the hydrogen ions falling so that most of the acid is in the clean samples). These clean samples of acid rain in Minnesota reveal that the acidity is caused primarily by nitrates and not by sulfates. Nitrates in acid rain are derived chiefly from burning gasoline and natural gas, while sulfates come mainly from burning high-sulfur coal. Acid rain caused by sulfate can acidify lakes, while nitrates (a common fertilizer) are quickly utilized by vegetation without the water becoming acid.

In New England alkaline dust has less influence on rainfall than in Minnesota. More important for acid rain is the type of storm and the direction it comes from, as studies in central New Hampshire show. Precipitation from the north-northwest through northeast was "cleanest" (pH 4.4), while storms from the south (between Boston and New York City) and south-southwest (through New York City) were most acid (pH 4.0). Rain from short thunderstorms was usually more acid than rain from long-lasting frontal storms; in fact, sulfate concentrations were 4 times greater in thunderstorms. Acid rain is greatest in summer in the northeastern United States because thunderstorms prevail then, atmospheric sulfates are high, and storm winds are most often southerly to westerly.

Getting More Water From Rocky Mountain Forests

Harvesting timber increases water yield by reducing evapotranspiration and altering soil moisture patterns. In the West, especially, this spin-off from timber harvesting is a major resource. Rocky Mountain Station scientists have pioneered the research on integrating high-elevation timber harvests with other resource uses, including water and wildlife.

A pilot-scale application of research findings on a 41-hectare watershed on the Fraser Experimental Forest in Colorado now has verified the performance of the Subalpine Water Balance Model for predicting water yield increases after timber harvest. Trees were harvested in small, circular patches covering 36 percent of the watershed area. Diameter of the patches was about 5 times the height of the trees. These small holes in the canopy create turbulence, and trap snow blowing over the forest. When these snow drifts melt in the late spring, they feed streams rather than trees (Figure 9).

The Subalpine Water Balance Model had predicted a 4.3 centimeter increase in water yield in an average year; for the 4 years since treatment, the flow increase has averaged 4.6 cm, with no effect on peak flow. Significantly more snow accumulated in the cut opening, but mean peak water equivalent on the watershed was not altered.



Figure 9.

Small openings cut in mountain forests trap blowing winter snows in deep drafts to prolong snow melt into summer.

New Subsurface Survey Techniques Can Cut Road Costs

On steep, unstable granitic slopes in central Idaho, locating and designing roads to minimize erosion and sediment production is extremely important. One crucial but largely neglected factor has been subsurface rock properties on these slopes. Underground rocks that have weathered or altered enough to contain sufficient clay can exhibit plastic properties that may lead to mass failure after disturbances such as roadbuilding.

Researchers at the Intermountain Station found that a combination of seismic and resistivity surveys can predict zones of weathered rock and provide information about its strength and the subsurface water content. Previously, geophysical surveys using only one technique had not proven particularly valuable for predicting the degree of rock weathering or zones of subsurface water flow requiring drainage. By combining the two survey techniques, scientists allow the strengths of one to compensate for the weaknesses of the other and improve the interpretation of results.

These research findings can cut the cost of road repairs substantially, particularly in areas where engineers have little experience or prior knowledge about subsurface conditions. In addition, engineers can now predict accurately (without preconstruction data) where to locate underground drains.

Acid Mine Drainage Is Not a Major Problem in Appalachian Watersheds

An analysis of streams from surface-mined watersheds throughout the Appalachian coal mining region has shown that streams are less acid than commonly believed. Research reports from the Northeastern Station show that at least two-thirds of streams draining both mined and unmined watersheds have pH values exceeding 6. Values averaged 6.3 on pre-1972 mined watersheds, 6.7 on watersheds mined from 1972 on, and 7.0 on unmined watersheds. In general, streams from watersheds mined after January 1972 are more favorable for aquatic life (less acid) than those from watersheds mined earlier (Figure 10). The pH values of streams in all categories also tend to be grouped in accordance with geologic boundaries.

The reports are being used as base line information by miners, consultants, environmentalists, regulatory agencies, and others. Also, the data are useful as a basis for future water quality studies. Some States are trying to obtain permission from the U.S. Office of Surface Mining to use these data in lieu of some of the pre-mining water sampling now required as part of mining permit applications. Besides the published reports, this information has been disseminated in training sessions to mining operators and regulatory personnel in Kentucky and West Virginia, and sessions are planned for other states in Appalachia.

Revegetating Bentonite Mine Spoils

Bentonite mine spoils in the Northern Great Plains are difficult to revegetate and reclaim. Although the spoils are not deficient in nutrients, their physical and chemical properties are poor. Plant succession is slow on them for other reasons too; top soil is scarce, rainfall is low, and there is livestock grazing (Figure 11). Steep spoils mined 30 years ago remain barren and eroded.

Reclamation efforts (contouring, top soil spreading, seeding) by researchers in the Rocky Mountain Station have shown promise of overcoming low pH, soil salinity, high sodium and sulphur concentrations, and soil compaction. None of the plants that were intentionally seeded by scientists on the reclaimed spoils survived better or was more productive than rillscale, a native broadleaved herb that seeded in on its own.



Figure 10

Research technician samples water to determine pH. Analysis shows that streams draining recently mined watersheds were found by scientists to be less acidic than those draining older mines.



Figure 11.

Natural plant succession on bentonite mine spoils is a slow process, even under the best of conditions.

The success of rillscale, regardless of the age of the spoil or reclamation treatment, shows that revegetation is possible in this harsh environment. However, more than 75 years may be required to restore these disturbed sites to productive sagebrush grasslands once again.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Forest Watershed Management and Rehabilitation			
Research..... \$	11,367	10,000	-1,367
FTE	269	242	-27

A decrease of \$1,367,000 allows for concentration on the highest priority problems while delaying initiation of new research. The following actions are anticipated:

- Closeout research on snow management and avalanche prediction. The unit planned for termination is:
 - RM-1601 (Ft. Collins, Colorado) Mountain Snow and Avalanche Research
- Terminate water studies located at Fairbanks, Alaska.
- Terminate Front Range water quality studies in Colorado.
- Terminate water quality research relating to Aspen Management in Intermountain West.
- Delay surface mineland reclamation studies in the eastern U.S.
- Reduce surface mineland reclamation studies conducted out of Rapid City, South Dakota, and Logan, Utah.
- Delay watershed management research at Parsons, West Virginia.
- Delay studies on municipal watershed ecosystems in eastern U.S.
- Delay testing of shrubs for use on disturbed sites in Western U.S.
- A savings of \$3,000 is associated with improved efficiencies in administrative support activities and \$11,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

In summary, these actions will result in the termination of one research work unit.

Object class information:

Salary and benefits	-806
Travel	-45
Transportation of things	-15
Rent, communications and utilities	-79
Printing and reproduction	-12
Supplies, materials and equipment	-129
Other contractual services	-281
Total	-1,367

Wildlife, Range, and Fish Habitat Research

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc.(+) or Dec.(-) <u>from Base</u>
(Dollars in thousands)						
Total	\$	8,706	9,093	9,257	8,367	-890
	FTE	194	202	202	186	-16

Objective: Develop knowledge and technology to maintain or improve wildlife and fish habitat; increase forage production; improve soil stability and vegetation cover; and integrate wildlife, fish, and livestock with other forest and rangeland uses.

Program description: Basic and applied research addresses soil-forage-livestock interactions in both forest and rangeland ecosystems; habitat of wildlife and fish; and the interactions among livestock, wildlife, fish and other wildland uses.

Range research focuses primarily on development and management of productive range ecosystems and responses of forage, soil, water, and fish and wildlife habitat and populations to grazing and range management practices. Research also examines forage and livestock response to forest succession and timber management alternatives and develops techniques to increase range site productivity, improved varieties of forage plants and shrubs, and propagation and planting techniques to rehabilitate degraded rangelands for livestock and wildlife habitat.

Wildlife and fish research provides information to meet the legal and regulatory requirements of such legislation as the Endangered Species Act of 1973 and the National Forest Management Act of 1976. Research also examines habitat requirements needed to sustain specific wildlife and fish populations in desired locations and numbers, and determines wildlife abundance and species composition associated with different forest and rangeland types, successional stages, and forest management practices. Specific studies focus on how to sustain and improve productivity of stream habitats for anadromous fish and how to monitor wildlife populations over large land areas, such as a National Forest. Examples of recent accomplishments are described below:

New System Developed For Monitoring Bird Populations and Habitat

The National Forest Management Act requires that wildlife on National Forests be monitored to ensure that no species are endangered by forest management activities and to verify that wildlife species respond favorably to planned land management activities. Monitoring populations of many species of wildlife over an area as large as a National Forest has never been accomplished with usual census methods and could be prohibitively expensive. The Pacific Southwest Station, however, has developed a new approach, which, if applied nationwide, could reduce costs of monitoring birds by 50 to 75 percent.

The idea is to group all bird species that use similar parts of the habitat for the same purposes (either feeding or nesting) and then count all individuals (no matter what species) in the group. Such groupings are called guilds, examples of which include birds that primarily use either the ground, shrubs, tree trunks, or foliage.

Hence, monitoring trends in guilds provides important information on the ability of individual zones of a habitat to support the birds that inhabit that zone. In addition, because all birds are counted during field sampling (which costs no more than counting only one species), forest land managers may be able to evaluate evidence of declines in individual species as well.

Applying What We Already Know About Rangelands

Managing the rangelands of the Great Basin has been hampered because we do not know enough about them. As a result, range quality and the range's ability to produce livestock and wildlife have declined. In recent years, the public has been displeased over the condition and use of publicly owned rangelands, and concerned about protecting and increasing all rangeland values.

In an effort to make useful what is already known about rangelands, the Intermountain Station has published a summary paper "Managing Intermountain Rangelands--Sagebrush-Grass Ranges," GTR-INT-134 (Figure 12). Sagebrush-grass vegetation makes up one of the largest ecosystems in the Great Basin, and has been the subject of considerable research during the past half century. Much of this ecosystem was abused during early settlement, and much is still far below its potential in forage production, wildlife habitat, and environmental quality. This summary distills for rangeland managers and users the most important information already available. Besides summarizing methods of rehabilitating, converting, and managing sagebrush, it also serves as a manager's reference and guide to research results. Included, for example, is the latest on sagebrush taxonomy and classification of sagebrush ecosystems.

This first-in-a-series of summary publications on managing Great Basin rangelands does for users and managers what they do not have the time or inclination to do for themselves--digest the most useful knowledge from over 1,250 earlier papers.

New Plants Will Help to Improve Intermountain Ranges

Three range plants have been given to commercial growers so they can produce and distribute certified seed in the Intermountain West. Adapted to arid sites (10 to 15 inches of rainfall), the three plants will serve as forage for livestock and wildlife and help to control erosion.

The Intermountain Station, USDA Soil Conservation Service, the Utah Division of Wildlife Resources, and other agencies released the plants after 15 to 20 years of tests that determined the best varieties for certain purposes. All three are widely adapted to conditions in the Intermountain area.

"Ephraim" crested wheatgrass was selected over other crested wheatgrasses because of its ability to produce rhizomes. It is particularly valuable for stabilizing disturbed sites. "Paiute" orchardgrass is adapted to drier conditions than other orchardgrasses and provides a longer period of green forage and better fall greenup on dry sites than the crested wheatgrasses. "Rincon" fourwing saltbrush was selected for its sustained biomass production, wide adaptation, and forage quality (Figure 13).

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Wildlife, range and fish habitat research \$	9,257	8,367	-890
FTE	202	186	-16

United States
Department of
Agriculture
Forest Service

Intermountain
Forest and Range
Experiment Station
Ogden, UT 84401

General Technical
Report INT-134

October 1982



Managing Intermountain Rangelands —Sagebrush-Grass Ranges

James P. Blaisdell
Robert B. Murray
E. Durant McArthur



Figure 12.

A land manager's reference to results of research on sagebrush-grass ranges of the Intermountain West.



Figure 13.

Seeds are plentiful on a 3-year-old "Rincon" fourwing saltbush plant growing at the Environmental Plant Center in Meeker, Colorado.

A decrease of \$890,000 will result in: (1) concentrating research on the highest priority problems; (2) terminating research that is largely completed; and (3) reducing or delaying research of relatively lower priority. Anticipated actions include:

- Delay collection and analysis of some multiple range resource outputs in the Oregon Range Evaluation Program.
- Closeout research on range/wildlife interactions on intermountain area lands. The unit planned for termination is:

INT-1751 (Logan, Utah) Ecology and Management of Aspen Lands in the West

- Closeout research on wildlife habitats of the central oak-hickory forest ecosystem and transfer residual funds to the wildlife unit at St. Paul, Minnesota. The unit planned for termination is:

NC-1701 (Columbia, Missouri) Land Use Impacts on Wildlife Habitats of the Central Oak-Hickory Forest Ecosystem

- Terminate wildlife studies on mine spoils conducted out of Berea, Kentucky and wildlife surveys conducted out of St. Paul, Minnesota.
- Reduce research on Puerto Rican parrot at Rio Piedras, Puerto Rico and wildlife habitat research conducted out of Fairbanks, Alaska.
- Delay cold-water fish habitat research at Franklin, North Carolina and transfer residual funds to wildlife research unit at Clemson, South Carolina.
- Delay anadromous fish habitat research at Juneau, Alaska and Arcata, California.
- Delay research on wildlife/timber management relationships at Juneau, Alaska.
- A savings of \$2,000 is associated with improved efficiencies in administrative support activities and \$9,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

In summary, these actions will result in the termination of two research work units.

Object class information:

Salary and benefits	-489
Travel	-31
Transportation of things	-10
Rent, communications and utilities	-60
Printing and reproduction	-9
Supplies, materials and equipment	-93
Other contractual services	-198
 Total	 -890

Forest Recreation Research

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Total	\$	2,146	2,068	2,108	2,013	-95
	FTE	52	49	49	48	-1

Objective: Provide both public and private land managers with the technology for more and higher-quality outdoor recreation experiences; and develop knowledge to manage vegetation in and near urban areas for optimum economic social and environmental benefits.

Program description: Recreation research determines the factors that underlie supply and demand for outdoor recreation. Biological and physical site carrying capacities are evaluated to find out how to sustain outdoor recreation without resource damage. Management strategies are developed to preserve natural environments while allowing land managers to accomplish other forest management objectives.

Recreation research undergirds decisions on major public investments in forest recreation, ensures that appropriate recreation experiences are available, and provides technology to protect resources for future use. Problems regarding the protection, management, and allocation of scarce recreation resources--equity in providing recreation, appropriate fee systems, evaluation of management performance, monitoring recreation supply and demand, and evaluating private-public roles in the recreation market--can be addressed through a continuing research effort.

Urban forestry research includes studies of the benefits, such as noise reduction, improved scenic quality, and increased property values, that urban forests can provide. This research: (1) assesses benefits from urban and community forests; (2) identifies management processes by which urban forest produce needed benefits; (3) develops more efficient ways to manage and protect urban forest resources; and (4) develops methods to integrate urban forest values into comprehensive urban development planning. Forest science brings a unique perspective to problems of managing urban forest resources by treating the urban forest as a multiple-use resource system. Urban forestry research considers the management of all natural resources found in and near urban environments--vegetation, soil, water, air, wildlife--not just "street trees." Examples of recent accomplishments are described below:

Report Forests Cooperation Among Wilderness Managers

The National Wilderness Preservation System, encompassing about 80 million acres, contains a great diversity of ecosystems and supports many uses. Each of the four agencies that manages wilderness areas imposes its own mandates and policies. The result is a decentralized mosaic of physical and management situations united through the general provisions of the Wilderness Act.

To understand this diversity and to gain more perspective on how individual wilderness areas fit into the national system, researchers at the Intermountain Station surveyed managers of all wilderness units. The managers answered questions about their management situations, problems, and techniques (Figure 14). This information provides a valuable compendium of the wilderness system in 1980.



Figure 14.

Diverse physical and management situations of the National Wilderness Preservation System pose unusual challenges to wilderness managers.

The survey results show that most wilderness units share common problems. Resource degradation and loss of solitude are troublesome in most areas. Despite similar problems, however, managers responded differently. Differences in philosophy among agencies are the main reason. The National Park Service manages most restrictively; its philosophy emphasizes resource protection. The Forest Service emphasizes freedom of choice for the user, so is less restrictive. The Fish and Wildlife Service emphasizes preservation of wildlife on its lands.

Data in this report are helping managers identify alternative responses to problems, areas with similar problems, and areas where various management techniques have been tried. This allows managers to profit from each other's experience, and should ultimately lead to a more consistently and efficiently managed wilderness system.

What Makes an Urban Park or Forest Visitor Feel Safe?

Fear of crime and antisocial behavior in urban parks and forests is a serious barrier preventing many people from using the parks and detracting from the enjoyment of those that do. Urban forest managers could encourage more people to use parks and forests and also increase the enjoyment of the ones who already use them if they could relate the park environment to how safe people feel.

The North Central and Southeastern Stations jointly studied how people reacted when they were shown color slides of urban parks and forests. Analysis showed, for example, that dense vegetation increases fear for most people, but some feel safest in heavily wooded, undeveloped forest. Most people feel safer when there are buildings, cars, or other people nearby, as long as the park and nearby structures are well maintained and free of graffiti.

The results of this research will provide guidelines for managers seeking to improve park safety (both real and perceived) while maintaining esthetically pleasing landscapes. Trees and other vegetation are essential for esthetic quality, and if they are properly placed and trimmed they need not interfere with the visibility that most people need in order to feel safe in a park.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Forest recreation			
research\$	2,108	2,013	-95
FTE	49	48	-1

A decrease of \$95,000 will allow for a combination of actions to: (1) accelerate research effort on the highest priority problems; and (2) accelerate closeout of nearly completed work. These actions include:

- Terminate nearly completed research on urban wildlife management at Amherst, Massachusetts.
- Reduce level of research on landscape management at Berkeley, California.
- Reduce level of research on integrating urban forest planning with comprehensive urban development planning at Syracuse, New York.

- A savings of \$1,000 is associated with improved efficiencies in administrative support activities and \$2,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-31
Travel	-4
Rent, communications and utilities	-10
Supplies, materials and equipment	-6
Other contractual services	-44
Total	-95

Forest Products and Harvesting Research

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars)	1985 Base in thousands)	1985 Estimate	Inc.(+) or Dec.(-) from Base
Total	\$	17,897	17,845	18,176	18,253	+77
	FTE	416	408	408	409	+1

Objective: To provide technology to harvest and utilize timber more efficiently including all species, whole trees, and wood wastes; to develop timber harvesting and transporting systems that are economically and environmentally acceptable; to improve the performance of wood products; to expand opportunities for wood products exports; to reduce costs and energy consumption in wood processing; and to facilitate forest management and environmental protection through the effective harvesting and use of wood.

Program description: Forest products and harvesting research programs are conducted to expand the recovery of high value products from each log and to increase the utilization of low-value trees, logging residues, dead trees, whole trees, and mill wastes.

Utilization research seeks to produce improved lumber, structural particleboard, panels, pulp, paper, and chemicals from wood; to develop wood-processing and preservative systems that will reduce waste, pollution, energy consumption, and losses from wood destroying organisms; and to develop economical and energy-efficient wood structures. Since the turn of the century, basic and applied research has nearly tripled product recovery from each log brought to the mill.

Harvesting research addresses specific regional forestry and environmental problems: In the Pacific Northwest and Alaska the focus is on improved systems to harvest trees economically and recover logging residues from steep terrain. In the Rocky Mountain area, research addresses the problems of forest road building on unstable slopes and harvesting operations in small diameter overstocked timber stands. In the East, harvesting research is conducted on ways to recover and utilize low-grade hardwood trees and logging residues. In the South, the primary effort is on small trees and plantation harvesting. A major overall thrust is to recover the 180 million dry tons of residue, cull, and small trees annually left on harvest sites. Some examples of recent accomplishments are:

First Lignin-Degrading Enzyme Discovered

Lignin is the complex natural plastic that cements and stiffens wood fibers. It comprises about 25 percent of wood and, next to cellulose, is the most abundant organic compound on earth. Until now, the biochemical mechanisms involved in its natural degradation during wood decay were essentially unknown.

Researchers at the Forest Products Laboratory, after years of painstaking basic research, have discovered for the first time, a lignin-degrading enzyme. This enzyme is secreted by a fungus, *Phanerochaete chrysosporium*, one of the organisms causing white-rot decay in wood. During degradation, the enzyme causes oxygen from the air to be combined with lignin, and the result is a partial biological oxidation and subsequent breakdown of the lignin.

Discovery of this enzyme opens up possibilities for many applications of biotechnology in wood processing, such as pulping, bleaching pulps, converting lignin to useful chemicals, and cleaning up noxious lignin wastes from pulp and papermills. The increased knowledge of the decay process, gained by this research, may also lead to biological methods for controlling wood decay.

New Ways to Test the Strength of Light-Frame Floors and Walls Devised

Wood-frame construction accounts for the use of about half of the lumber and panel products in the United States. Improved building techniques and more efficient types of materials are continually being proposed to offset the increasing cost of labor and materials.

One roadblock to using new materials and techniques is that building code representatives do not know how to determine the effect of these changes on the structural safety of the building. To provide this information, the industry needs structural analysis methods for new light-frame components.

Cooperative research at the Forest Products Laboratory and several universities, has devised new ways to analyze floors and walls and have verified them by testing their components. Scientists have also developed a revised computer program for truss analysis. The new structural analysis methods can accurately predict both the stiffness and strength of components under the types of loads that occupants and winds would put on a building in service.

Builders can now determine the effect of new types of framing, sheathing, or fastening materials on the strength of a building without the extensive testing of full-size components once required. Both suppliers and users will easily be able to determine how changes in materials or construction practices will affect both the serviceability and the safety of light-frame floors and walls.

Managing Moisture in Wood-Frame Buildings

Over the past 10 years, rising energy costs have changed building construction practices. Buildings are better insulated and air leakage has been greatly reduced. These factors can combine to create moisture problems within walls, floors, and roofs of our wood-frame homes. To prevent damage to these structures, indoor humidity levels must be controlled. The moisture that results primarily from breathing, cooking, and bathing, can be managed by ventilating the living space and using proper construction techniques.

Researchers at the Forest Products Laboratory are taking several approaches to assure that moisture in our homes does not become a construction problem on a national scale. These include analytic studies and laboratory experiments along with field experiments under both controlled and natural conditions. A theoretical model, which includes the effect of air leakage, has been developed to analyze moisture movement through walls. A field study of moisture in attics indicates that present ventilation criteria, which were developed in the 1940's, may not be suitable for today's construction. Controlled field experiments describe the seasonal moisture changes in walls of several different types of houses in both a cold climate and a moist summer climate.

Manufacturers are using results of these studies to help avoid moisture problems for the home owner.

Thinking Small: Harvesting Systems for the Interior West

Small softwood timber makes up a large part of the potentially available wood in the interior West. (Lodgepole pine alone occupies more than 12 million acres.) Two kinds of small-timber stands prevail--second growth, pole-sized trees that are usually overstocked, and mature or overmature stagnated trees that are grossly overstocked. Severe insect and disease infestations are widespread; many of these stands are a mixture of live and dead timber. The danger of catastrophic wildfire is on the increase.

In both kinds of stands, management objectives--whether of timber, water, wildlife habitat, or esthetics--depend upon some sort of harvesting. An efficient harvesting system could extend the wood resource, as well as improve the management and protection of other resources.

Knowing that the costs of harvesting and handling small stems often pose the main barrier to effective utilization, researchers at the Intermountain Station field tested and evaluated several harvesting systems that handle small trees more efficiently than conventional harvesting and recover a mix of products.

The researchers found that the most effective systems incorporated feller-bunchers, grapple skidders (or farm tractors with grapples), and whole-tree chippers, with equipment to load and transport logs and chips (Figure 15). The benefits are a clean logging site with no residue problem, utilization of all material harvested, and recovery of a product mix that maximizes the value of products obtained.

Having Our Roads and Our Fishing Too

The National Forests of central Idaho have salmon and steelhead streams with steep, erodable mountain slopes between them. In building forest roads on these slopes, forest engineers must assure that sediment from the roads does not destroy fish habitat in nearby streams, and that rising construction costs are kept as low as possible. In other words, there are stringent water quality standards to be met by the Forest Service in the most cost-efficient manner.

Engineering researchers at the Intermountain Station have begun to deal with erosion and cost reduction in several ways. By developing techniques for predicting surface erosion, (given certain soils, vegetation, geologic conditions, road specifications, and climatic events), the cheapest alternative for reducing it can be worked out before construction. Also, determining what part of the disturbed area yields most of the sediment will help engineers reduce control costs. Studies on the Silver Creek Experimental Watershed, Boise National Forest, and the Nezperce National Forest, showed that in some areas more sediment eroded from the cut slope and ditch, over the long term, than from the road surface (Figure 16). Knowing this, engineers can avoid the very high cost of rock-surfacing the road and turn their attention to cheaper ways of reducing erosion from the cuts and ditches.



Figure 15.

An in-woods system of grapple skidders, whole-tree processor, and chipper process small-diameter trees into sawlogs and chips.



Figure 16.

Simulated rainfall is applied at a calibrated rate to a test section of forest road to evaluate the relative effectiveness of alternative road design and treatment practices in reducing surface erosion.

As this knowledge becomes available from research, the Nezperce National Forest and others in the Northern Region are putting it to work to help protect the fine fishing resource of the Columbia River system.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Forest products and harvesting research \$	18,176	18,253	+77
FTE	408	409	+1

No significant program changes will be made from the 1984 level.

A savings of \$5,000 is associated with improved efficiencies in administrative support activities and \$20,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+21
Travel	+3
Rent, communications and utilities	+8
Supplies, materials and equipment	+13
Other Contractual services	+29
Grants, subsidies and contributions	+3
Total	+77

Distribution of Research Appropriation
by Station and Washington Office
1983-1985

<u>Station</u>	<u>1983 Appropriation</u>	<u>1984 Appropriation</u>	<u>1985 Estimate</u>
Pacific Northwest	\$15,306	\$15,436	\$14,703
Pacific Southwest	8,881	9,062	8,559
Intermountain	10,738	10,725	9,989
Rocky Mountain	9,296	9,500	9,014
North Central	9,461	9,357	9,325
Northeastern	16,211	16,529	15,429
Southeastern	10,986	10,920	10,585
Southern	13,376	13,587	12,959
Forest Products Lab	<u>11,962</u>	<u>12,165</u>	<u>12,253</u>
Total Stations	\$106,217	\$107,781	\$102,816
Washington Office	<u>1,455</u> <u>1/</u>	<u>774</u> <u>1/</u>	<u>254</u> <u>1/</u>
GRAND TOTAL	\$107,672	\$108,555	\$103,070

1/ Includes reimbursement to other agencies; 1983, \$475,000; 1984, \$475,000; 1985, \$175,000. Other WO items include RPA Activities and CANUSA funds to be redistributed.

FOREST RESEARCH
PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1104-0-1-302				
Program by activities:				
Direct program:				
1.	Land and resource protection research	48,754	48,454	45,675
2.	Renewable resource management and utilization research	58,164	60,949	57,395
	Total direct program	106,918	109,403	103,070
	Reimbursable program	3,536	4,000	3,800
10.00	Total obligations	110,454	113,403	106,870
Financing:				
Offsetting collections from:				
11.00	Federal funds	-3,380	-3,823	-3,632
14.00	Non-federal sources	-156	-177	-168
25.00	Unobligated balance lapsing	754	--	--
39.00	Budget authority	107,672	109,403	103,070
Budget authority:				
40.00	Appropriation	107,672	108,555	103,070
Transfers in for:				
46.20	Civilian pay raises	--	848	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	106,918	109,403	103,070
72.40	Obligated balance, start of year	24,572	21,726	22,575
74.40	Obligated balance, end of year	-21,726	-22,575	-21,877
90.00	Outlays excluding pay raise supplemental.....	109,764	107,740	103,734
91.20	Outlays from civilian pay raise supplemental.....	--	814	34

FOREST RESEARCH
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code: 12-1104-0-1-302		1983 actual	1984 est.	1985 est.
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	60,409	63,342	62,195
11.3	Other than full-time permanent	4,108	4,392	4,270
11.5	Other personnel compensation	170	178	175
11.9	Total personnel compensation	64,687	67,912	66,640
Personnel benefits:				
12.1	Civilian	7,748	8,107	7,955
13.0	Benefits for former personnel	310	303	297
21.0	Travel and transportation of persons	3,256	3,149	2,675
22.0	Transportation of things	668	653	555
23.1	Standard level user charges	1,087	1,466	1,339
23.2	Communications, utilities, and other rent	5,232	5,059	4,297
24.0	Printing and reproduction	977	955	811
25.0	Other services	16,220	15,281	12,964
26.0	Supplies and materials	3,090	2,988	2,538
31.0	Equipment	2,915	2,819	2,395
32.0	Lands and structures	257	251	213
41.0	Grants, subsidies and contributions .	465	454	386
42.0	Insurance claims and indemnities	6	6	5
99.0	Subtotal direct obligations	106,918	109,403	103,070
99.0	Reimbursable obligations	3,536	4,000	3,800
99.9	Total obligations	110,454	113,403	106,870

FOREST SERVICE RESEARCH

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-1104-0-1-302			
Direct:			
Total number of full-time permanent positions	2,360	2,372	2,252
Total compensable workyears:			
Full-time equivalent employment	2,375	2,393	2,267
Full-time equivalent of overtime and holiday hours	6	6	5
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800
Reimbursable:			
Total number of full-time permanent positions	40	40	38
Total compensable workyears:			
Full-time equivalent employment	40	41	39
Full-time equivalent of overtime and holiday hours	1	1	1
Average ES salary	--	--	--
Average GS grade	7.25	7.32	7.32
Average GS salary	17,500	18,380	18,380
Average salary of ungraded positions ...	--	--	--

STATE AND PRIVATE FORESTRY

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date	1985 RPA (Dollars	1985 Base in thousands)	1985 Estimate	Inc. (+) or Dec. (-) from 1984	Inc. (+) or Dec. (-) from Base
Forest Pest Management\$	27,844	29,062	40,778	29,434	15,550	-13,512	-13,884
FTE	403	427	--	427	370	-57	-57
Fire Protection\$	14,411	14,000	46,055	14,033	3,065	-10,935	-10,968
FTE	62	58	--	58	52	-6	-6
Forest Management and Utilization ...\$	17,080	10,677	57,690	10,786	3,890	-6,787	-6,896
FTE	158	129	--	129	81	-48	-48
Special Projects\$	3,500	6,840	5,197	6,845	3,000	-3,840	-3,845
FTE	15	17	--	17	--	-17	-17
Total\$	62,835	60,579	149,720	61,098	25,505	-35,074	-35,593
FTE	638	631	--	631	503	-128	-128

Appropriation Summary Statement

Redirection of the State and Private Forestry Programs will be continued in 1985. Direct financial assistance to States through grants and cost-sharing will not be provided, except for the Boundary Waters Canoe Area grant to Minnesota. States are generally in a better position to assess their priorities and to determine the amount of resources to be allocated. The Federal Government will limit its activities to a more narrowly defined role. Limited technical assistance on matters of national importance will be provided. In addition, national data collection and information dissemination will be continued.

The proposed budget will reduce the Federal personnel requirements by 128 full-time equivalents (FTE's).

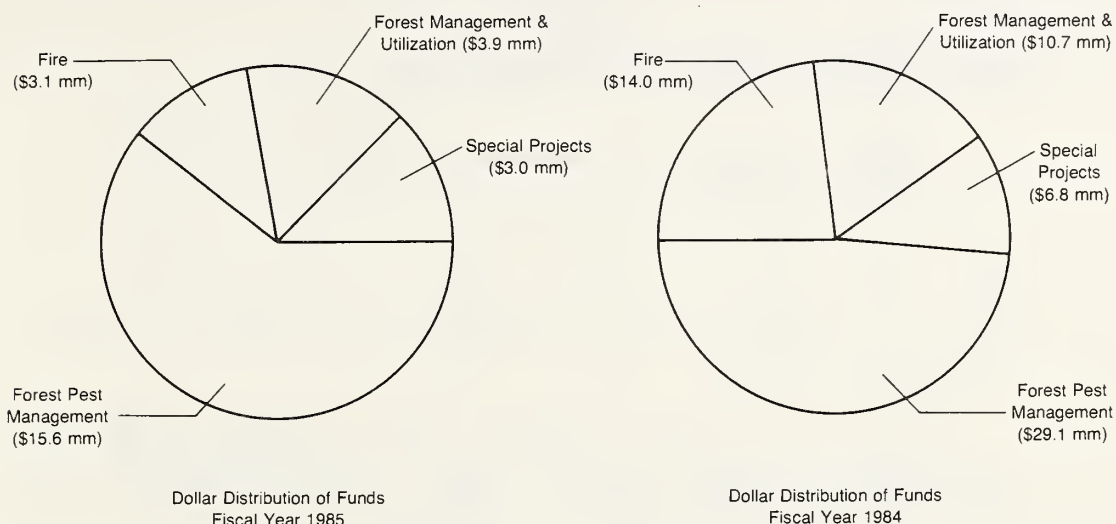
Fifty-seven percent of the Nation's commercial forest land is in nonindustrial private ownerships. This land is important in meeting needs for natural resources, especially timber. Of the 284 million acres of nonindustrial private forest land, 124 million acres contain economic opportunities for intensified management. The cooperative forestry programs of State and Private Forestry provide information and assistance to make landowners aware of these opportunities.

The cooperative forestry programs are delivered through State Foresters or equivalent State officials in the 50 States, Guam, Puerto Rico, and the Virgin Islands. The programs are authorized by the Cooperative Forestry Assistance Act of 1978 (P.L. 95-313). These programs seek to assist the States in meeting their objectives to:

1. Increase timber supplies, improve waterflows, and maintain fish and wildlife habitat by protecting forests and other non-Federal wildlands from fire.
2. Reduce direct losses of timber and prevent reductions in tree growth and quality of wood products through protection from damaging insects and diseases.
3. Assist landowners, operators, wood processors, and State and local agencies to:
 - a. increase timber growth and harvests;
 - b. improve efficiency and reduce waste in harvesting, processing, and marketing of wood products;
 - c. manage forest resources for their multiple uses in rural and urban areas.

The following chart illustrates the proposed distribution of State and Private Forestry funds for Fiscal years 1984 and 1985 to accomplish high priority portions of the program objectives:

State and Private Forestry Program



Federal budget and tax policies also provide assistance to nonindustrial private forest landowners. Recent tax incentives for timber production should encourage increased production. These include Public Law 96-451, which provides a 10 percent investment tax credit and a 7-year amortization of reforestation costs. Also, the Economic Recovery Tax Act of 1981 reduces income and inheritance taxes thus providing added incentives for some private forest landowner investment.

The Act of December 23, 1980 (P.L. 96-586: "Burton-Santini") provides authority for payments to political subdivisions within the Lake Tahoe Basin for water pollution control and land management purposes.

The cooperative forestry programs of the Forest Service are closely related to, but distinct from assistance programs of other USDA agencies. These agencies include the Soil Conservation Service (SCS), the Extension Service (ES), the Agricultural Stabilization and Conservation Service (ASCS), and the Farmers Home Administration (FmHA). An interagency agreement on forestry explains each agency's responsibility with respect to protection, management and utilization of privately-owned forest resources. Within the scope of the cooperative forestry programs, Federal technical assistance helps achieve resource management objectives associated with the Resource Conservation Act (RCA) and the National Conservation Program (NCP). Funding in the Forest Management activity is targeted to efforts aimed at doing more forestry work to control erosion and flooding.

State and Private Forestry provides national leadership for the transfer of forestry technology within the Forest Service to outside organizations. The goal is to assist in the productive transfer of forestry research results to enhance the management and utilization of our forest resources.

Authorities:

P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944
(7 U.S.C. 2250)
Section 703

Erect, alter, and repair buildings necessary to carry out authorized work.

P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a)
Section 1

Erection and leasing of buildings, structures, and land from non-Federal sources.

Such sums as are appropriated. No expiration date specified.

P.L. 95-313, Cooperative Forestry Assistance Act of 1978, July 1, 1978
(16 U.S.C. 2101-2110)
Sections 3 and 5-8

Cooperation in forest management and urban and community forestry; insect and disease control; rural fire control; and management and planning assistance.

(05-96) 12-1100 302 SAGR HAGR

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended (16 U.S.C. 1601 note)
Sections 2, 3, 4, and 5

Forest resources planning and evaluation.
(05-96) 12-1100 302 SAGR HAGR

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 95-495, Act of October 21, 1978, 92 Stat. 1649
Establishing Boundary Waters Canoe Area Wilderness

Section 6(c)(2) \$3,000,000 additional for grants to the State of Minnesota for resource management activities.

Authority for this grant expires in 1991.

P.L. 96-487, Act of December 2, 1980, Alaska National Interest Lands Conservation Act

Section 705(b) \$5,000,000 annually

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 96-586, Act of December 23, 1980,

Section 2(g); (h) Payments to localities for water pollution control and land management.

P.L. 90-543, National Trails System Act as amended by P.L. 98-11 (16 U.S.C. 1241 et seq)
Section 10

Various authorizations for various projects.

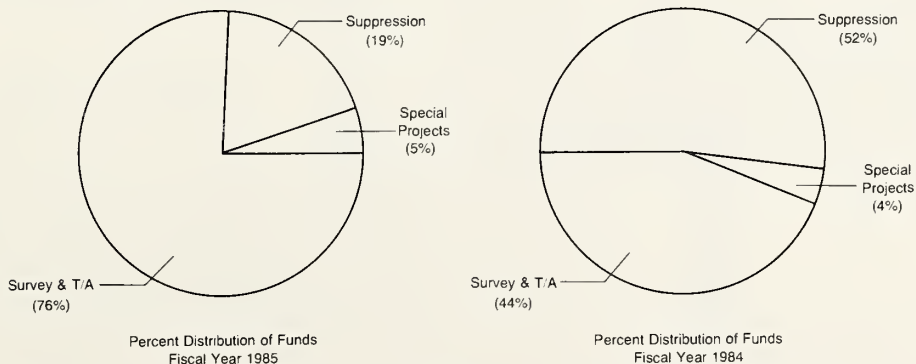
Forest Pest Management

	1983 Actual	1984 Appropriation Enacted to Date	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
(Dollars in thousands)					
<u>Federal Lands</u>					
Surveys and Technical Assistance	\$ 9,561	10,918	11,058	11,180	+122
Million acres	144	154	154	154	---
FTE	333	364	364	352	-12
<u>Insect and Disease</u>					
Suppression	\$ 9,263	8,000	8,102	3,000	-5,102
Thousand acres	1,343	NA	NA	NA	NA
FTE	55	48	48	9	-39
Special Projects	\$ 1,240	1,245	1,260	695	-565
FTE	15	15	15	9	-6
<u>Cooperative Lands</u>					
Surveys & Technical Assistance	\$ 1,915	1,899	1,924	675	-1,249
Million acres	455	450	450	33	-417
FTE	--	--	--	--	--
Suppression	\$ 5,865	7,000	7,090	--	-7,090
Thousand acres	675	NA	NA	--	NA
FTE	--	--	--	--	--
Total	\$ 27,844	29,062	29,434	15,550	-13,884
FTE	403	427	427	370	-57

General: The objective of the Forest Pest Management program is to prevent and reduce insect and disease-caused losses with emphasis on integrated pest management. Forest Pest Management's primary roles are to provide technical and financial assistance for technology transfer, coordination in forest insect and disease detection, evaluation, prevention, and suppression on forest lands of all ownerships.

To accomplish the general objective, the Forest Pest Management program is separated into three categories. The distribution of funding for these categories for fiscal years 1984 and 1985 is shown on the following charts:

Forest Pest Management Program



Federal Lands: Surveys and Technical Assistance

Objective: To detect and evaluate insect and disease outbreaks at an early stage to reduce suppression costs and forest resource losses, and to provide technical assistance on integrated pest management, prevention strategies, and proper use and handling of pesticides.

Program description: Provides nationwide support for conducting pest detection surveys and evaluation and the reporting of pest problems to Federal land managers. Provides technical advice and technology transfer through direct technical assistance to land managers, and activities such as training, seminars, symposiums, and workshops to ensure that sound pest management strategies are used in achieving forest resource management goals and that pesticides are not misused.

In fiscal year 1983, 144 million acres of Federal forest lands were surveyed resulting in 372 biological evaluations. This accomplishment provided the land managers with information needed to reduce or prevent forest resource losses.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Increase</u>
Survey and technical assistance	11,058	11,180	+122
FTE	364	352	-12

This increase of \$122,000 maintains high priority technical assistance activities on Federal lands to reduce the likelihood of insect and disease outbreaks going undetected before unacceptable forest resource losses occur. Additionally, early detection reduces suppression costs. Approximately 154 million acres will be surveyed.

A decrease of \$4,000 associated with improved efficiencies in administrative support activities and \$16,000 associated with a phased reduction of positions in grades GS/GM 11-15 is within the budget proposal for this activity.

Object class information:

Salary and benefits	-296
Travel	+30
Transportation of things	+5
Rent, communications and utilities	+12
Printing and reproduction	+4
Supplies, materials and equipment	+15
Other contractual services	+197
Grants, subsidies and contributions	+155
Total	+122

Federal Lands: Insect and Disease Suppression

Objective: To suppress damaging forest insects and diseases; to prevent and reduce unacceptable forest resource losses; and to maintain forest environments in a healthy and productive condition, using state-of-the-art-integrated pest management techniques.

Program description: Forest insects and diseases weaken and kill trees, cause growth loss and site deterioration, and reduce the quality of the forest environment. This program utilizes silvicultural, biological, chemical, and mechanical methods to suppress major forest pests. Examples of current major pest problems are gypsy moth, spruce budworms, bark beetles, and dwarf mistletoe.

During fiscal year 1983, approximately 1,277,000 acres of National Forest System lands and 65,874 acres of other Federal lands were treated. Evaluation of these suppression activities indicate that approximately 462 million cubic feet of merchantable timber was protected and 237 million cubic feet of infested merchantable timber was removed through salvage operations. Also, the degradation of other resource values, such as esthetics, recreation, wildlife, and watershed, was prevented in the treatment area. Expectations for fiscal year 1985 are that major pest outbreaks will continue and suppression will be necessary to reduce unacceptable damage and tree mortality.

Initial targets for pest suppression are not included for fiscal years 1984 and 1985. Actual accomplishments will be reported after approved projects are completed.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Insect and disease suppression	8,102	3,000	-5,102
FTE	48	9	-39

A decrease of \$5,102,000 will limit suppression activities to the use of conventional pesticides and mechanical treatments to suppress major pests on the highest value timber resources on Federal lands. State and private landowners will be responsible for suppression on their lands, except where treatment of these lands is a part of a biological sound treatment unit. In these cases, the cost-sharing rates described under Forest Pest Management, Cooperative Lands, will apply.

Object class information:

Salary and benefits	-961
Travel	-293
Transportation of things	-50
Rent, communications and utilities	-121
Printing and reproduction	-44
Supplies, materials and equipment	-147
Other contractual services	-3,148
Grants, subsidies and contributions	-338
 Total	 -5,102

Special Projects

Objective: To obtain information on pest losses, to bring new or improved technology into use, and to assess benefits and risks of using pesticides for forest pest management activities. This objective is achieved through special project applications on both Federal and nonfederal lands.

Program description: Appraises forest resource losses caused by insects and diseases; determines the value of new technological improvements, materials, methods, or strategies; demonstrates techniques or strategies to improve the efficiency of forest pest management programs; and evaluates the benefits and environmental risks of pesticides of critical importance to forestry under the USDA-National Agricultural Pesticide Impact Assessment Program (NAPIAP).

In fiscal year 1983, special projects were conducted to assess insect and disease losses and implement new or improved technology. Such activities included the Maryland IPM gypsy moth pilot project and continued production of the Douglas-fir tussock moth (DFTM) virus at the Forestry Sciences Laboratory in Corvallis, Oregon. NAPIAP projects were done to fill data gaps in the areas of environmental effects, human exposure, and timber growth yields associated with the use of pesticides in forestry.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Special Projects\$	1,260	695	-565
FTE	15	9	-6

A decrease of \$565,000 provides for the funding of the highest priority special projects relating to DFTM virus production and NAPIAP activities. The Maryland IPM gypsy moth pilot project will be discontinued.

Object class information:

Salary and benefits	-148
Travel	-54
Rent, communications and utilities	-20
Supplies, materials and equipment	-24
Other contractual services	-319
Total	-565

Cooperative Lands: Surveys and Technical Assistance

Objective: To detect and evaluate insect and disease outbreaks at an early stage to reduce forest resource losses and suppression costs; to provide technical assistance and coordination on pest management activities.

Program description: Provides a share of the cost for State technical forest insect and disease staffs and associated operating support to conduct pest detection surveys and evaluations and report pest problems and management recommendations to land managers. Staffs provide technical advice and technology transfer through direct technical assistance to land managers, training, seminars, symposiums, and workshops, to ensure that sound pest management strategies are used in achieving forest resource management goals. This program is called the Cooperative Forest Pest Action Program.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
		(Dollars in thousands)	
Survey and technical assistance	1,924	675	-1,249
FTE	--	--	--

A decrease of \$1,249,000 does not provide for federal cost-sharing for the Cooperative Forest Pest Act Program. It is expected that States will continue effective State and private survey and technical assistance programs depending on their program priorities. The remaining funds shown for cooperative surveys will allow for Federal purchase of State pest condition data.

Object class information:

Grants -1,249

Cooperative Lands: Insect and Disease Suppression

Objective: To suppress damaging forest insects and diseases on State and private lands; to prevent and reduce unacceptable forest resource losses; and to maintain forest environments in a healthy and productive condition, using integrated pest management techniques.

Program description: Current major problems on State and private lands are gypsy moth, spruce budworms, and bark beetles. Federal cost-sharing, based on 25 percent for non-Federal public lands, 33-1/3 percent for industry lands, 50 percent for nonindustrial private lands, has been provided for approved projects and will be continued through fiscal year 1984.

In fiscal year 1983, 675 thousand acres of State and private lands were treated. Evaluation of these suppression activities indicated that 361 million cubic feet of merchantable timber was protected and 8.6 million cubic feet of infested merchantable timber was removed through salvage operations.

Initial targets for pest suppression are not included for fiscal years 1984 and 1985. Actual accomplishments will be reported after approved projects are completed.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Suppression\$	7,090	--	-7,090
FTE	--	--	--

A decrease of \$7,090,000 does not provide grants to the States for cooperative insect and disease suppression projects. Depending on program priorities, it is expected that the States will carry out high priority suppression projects without Federal financial assistance.

Object class information:

Grants -7,090

Fire Protection

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u> (Dollars in thousands)	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Fire Protection\$	14,411	14,000	14,033	3,065	-10,968
FTE	62	58	58	52	-6

General: The Fire Protection program assists in the protection of 1.5 billion acres of non-Federal lands from wildfire. States and their political subdivisions have the primary responsibility for providing fire protection. Program objectives are accomplished through leadership, coordination, and cooperation.

Objectives: The objectives of the Fire Protection program are to:

1. Achieve efficiency in fire protection on nonfederal wildlands.
2. Achieve national benefits which exceed Federal expenditures for fire protection on nonfederal wildlands.
3. Cooperate, participate, and consult with the States on fire protection for nonfederal wildlands and other rural lands.

Program description: The Fire Protection program is designed to use Forest Service technical and related assistance to encourage and assist the delivery by the States of efficient and adequate protection of nonfederal wildlands.

The fire protection program consists of the following major program elements:

1. Wildland Fire Protection. Federal technical and related assistance in fire protection is provided for non-Federal wildlands.

2. Federal Excess Personal Property. State Foresters are eligible for the loan of Federal excess personal property for their rural fire protection programs. Because of the shortage of some types of property in this program, an efficiency analysis is used to assign the property where the greatest potential gain can be expected. The national interest in the protection of State and private lands from fire is improved through this continuing program.

Each of these programs has two distinct parts. The first part is Forest Service activities in administration, leadership, and technical assistance. The second is Forest Service participation in activities with States to meet Cooperative Fire Protection program objectives.

3. Cooperative Forest Fire Prevention (CFFP). This is a continuing nationwide program of fire prevention through public service advertisements and educational programs known as the Smokey Bear program.

Specific Program Activities--FY 1985. The thrust of the program will be to help the States achieve efficiency in wildland fire protection.

The \$3,065,000 proposed in FY 1985 will permit the Forest Service to assist States in the highest priority items of national interest. These include the following activity groups:

1. Information. Collecting consistent historical data and new data to provide information for analysis and planning, for assessing accomplishments and opportunities for improved management, and for nationally needed information on programs which support efficiency studies.

2. Analysis and Planning. Assisting States in determining the efficient use of fire protection resources and steps for implementation and maintenance of the efficient level of fire protection. Developing or updating State-wide analyses, joint analyses with other States or agencies, and analyses of specific protection options such as fire prevention.

A major part of the activity is assisting the States to achieve efficient fire protection based on State-wide efficiency analyses.

3. Technology Development and Transfer. Providing assistance for developing and transferring new ideas and technologies between States and Federal agencies to improve fire protection efficiency.

4. Federal Excess Personal Property. Loaning property to States to enhance their fire protection capabilities at minimum costs. Excess property will be directed to areas with the largest potential efficiency gain based on the analysis of fire protection needs. This is a continuing program. Annually, property worth \$30 to \$40 million is transferred on loan to the States.

5. Shared Protection Resources. Developing and maintaining fire protection resources, which are available for sharing with other State, local, and Federal agencies will lead to a more cost efficient operation.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Fire Protection\$	14,033	3,065	-10,968
FTE	58	52	-6

A decrease of \$10,968,000 will redirect Forest Service involvement with the States' fire protection program. Historically, the basic program was grants to the States, primarily representing a sharing by the Federal Government of the cost of fire protection on nonfederal wildlands. Grants are eliminated in 1985 and greater reliance is being placed on local units to fulfill their fire protection responsibilities associated with these wildlands.

The fire protection program emphasizes Forest Service participation in activities which will result in the identification of the most efficient level of protection; the most efficient mix of presuppression and suppression forces; the most efficient mix of prevention, detection, fuels management and initial attack forces; and the most efficient management of shared suppression reinforcements. Once these efficient standards are established, the program is designed to provide the technical assistance required to implement those changes needed to achieve efficient protection.

The decrease in funding eliminates grants to the States. This decrease represents a small portion of total State and Federal expenditures for fire protection. For 1984, it is estimated that grants to States will be about 5 percent of total expenditures. High priority Federal technical assistance will be maintained.

A decrease of \$1,000 associated with improved efficiencies in administrative support activities and \$4,000 associated with a phased reduction of positions in grades GS/GM 11-15 is within the budget proposal for this program.

Object class information:

Salary and benefits	-190
Travel	-36
Supplies, materials and equipment	-24
Other contractual services	-143
Grants	-10,575
Total.....	-10,968

Forest Management & Utilization

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc.(+) or Dec.(-) from Base
(Dollars in thousands)						
Forest Resource						
Management	\$	7,759	5,177	5,230	2,235	-2,995
(Thousand acres planned forest management).....		3,397	1,723	1,723	--	-1,723
	FTE	82	73	73	54	-19
Wood Utilization	\$	2,582	1,165	1,177	970	-207
(Million cubic feet)...		120	49	49	18	-31
	FTE	26	20	20	13	-7
Seedlings, Nursery and						
Tree Improvement	\$	2,514	1,745	1,763	165	-1,598
(Million seedlings) ..		743	114	114	--	-114
	FTE	20	16	16	3	-13
Urban Forestry	\$	1,523	1,600	1,616	--	-1,616
	FTE	5	6	6	--	-6
Management Improvement	\$	2,702	990	1,000	520	-480
	FTE	25	14	14	11	-3
Total	\$	17,080	10,677	10,786	3,890	-6,896
	FTE	158	129	129	81	-48

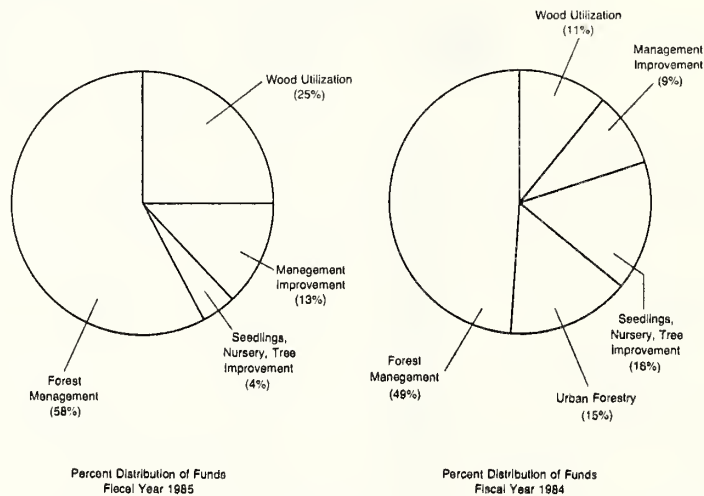
General: The Forest Service, through the Forest Management and Utilization Program, assists State forestry organizations in improving the production of forest resources on private nonindustrial and non-Federal public forest lands. Emphasis is given to increasing the supply of timber to help meet the Nation's projected needs. Activities also included are tree seedling production, nursery management, tree improvement, urban and community forestry, and management improvement.

States utilize Federal assistance to:

1. Improve management of all forest resources through technical advice and assistance to nonindustrial private landowners.
2. Improve utilization of wood and wood products through technical advice and assistance to loggers and wood processors.
3. Procure, produce, and distribute tree seeds and trees and improve and expand State nursery facilities.
4. Develop genetically improved seed through tree improvement programs.
5. Assist local governments to improve management of trees and resources in and near communities and urban areas.
6. Become more efficient organizationally to respond quickly and effectively to local and national needs.
7. Develop planning skills to maximize the use of forest resources for local and national needs.

The distribution of funding for these categories for fiscal years 1984 and 1985 is shown on the following charts:

Forest Management & Utilization

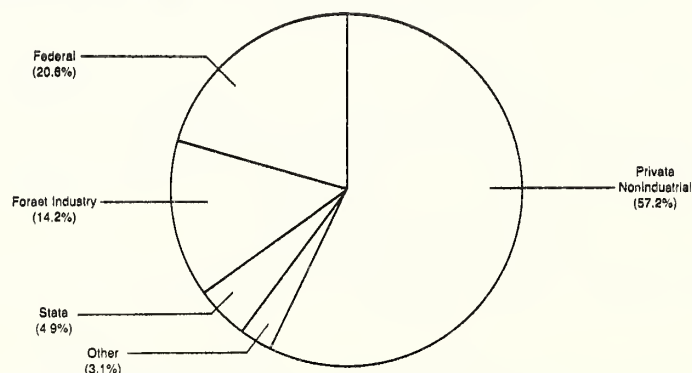


Forest Resource Management

Objective: To improve the forest resources on nonindustrial private lands through assistance in overall forest management, timber harvesting and processing activities, reforestation, and timber stand improvement; improve and protect wildlife habitat; develop dispersed recreation opportunities; improve forest range conditions; and improve and protect soil and water resources.

Program description: Private nonindustrial forest lands are a major component of United States wood supplies. As the following chart indicates, over one-half of the Nation's total commercial forest land is held by nonindustrial private owners.

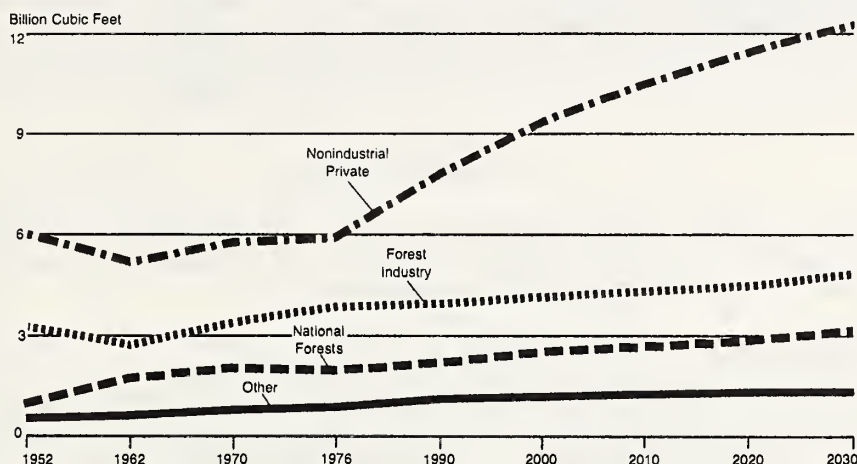
U.S. Commercial Forestland Ownership
Percentage Distribution



Source -- Wood Use: U.S. Competitiveness and Technology (Washington, D.C.: U.S. Congress, Office of Technology Assessment, August 1983)

As shown in the following line graph, timber output from nonindustrial private ownerships is an important source of domestic wood supply. Nationally, the United States forest products industry obtains 47 percent of its round-wood supply from nonindustrial private forest lands.

Roundwood Supplies by Ownership Class with Projections to 2030



Source -- Wood Use: U.S. Competitiveness and Technology (Washington, D.C. U. S. Congress, Office of Technology Assessment, August, 1983)

The Forest Service, by working through the States, provides on-the-ground professional and technical forestry assistance to nonindustrial private forest landowners. In 1983, some 900 State Service Foresters provided assistance and advice to 136,000 woodland owners on more than 3.4 million acres of nonindustrial private forest lands. These landowners planted over 500,000 acres and performed timber stand improvement work on more than 300,000 acres.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Forest resource management	5,230	2,235	-2,995
FTE	73	54	-19

A decrease of \$2,995,000 acknowledges the changing Federal role in helping States provide professional forestry assistance to nonindustrial private landowners. Federal financial grants to States to defray part of State costs are being eliminated. Forest Service technical assistance will be directed at high priority problems of national importance.

Depending on program priorities, States will maintain some resource management programs for private landowners, maintain improvements in which they have capital investments, and sustain management on State forests.

The number of Forest Service Foresters who provide technical assistance to private landowners will be reduced. Accomplishments will be reduced, but the degree of reduction will depend on the funding levels provided by the individual State and the response of private landowners to the economic incentives provided by the favorable treatment in the tax code.

A decrease of \$1,000 associated with improved efficiencies in administrative support activities and \$4,000 associated with a phased reduction of positions in grades GS/GM 11-15 is within the budget proposal for this activity.

Object class information:

Salary and benefits	-484
Travel	-85
Rent, communications and utilities	-13
Supplies, materials and equipment	-55
Other contractual services	-117
Grants, subsidies and contributions	-2,241
Total.....	-2,995

Wood Utilization

Objective: To improve tree harvesting, primary and secondary processing, and waste wood utilization through assistance to loggers and processors to extend the forest resource and increase wood industry productivity.

Program description: Forest products utilization activities introduce new and existing technologies to help improve the competitiveness of the forest products industry in the United States. Technical assistance to loggers and processors is provided by on-the-ground Federal and State forest products utilization specialists. Activities include the Improved Harvesting Program and the Sawmill Improvement Program.

The Improved Harvesting Program (IHP) provides on-site evaluations of the efficiency of logging operations and delivers information on the techniques for implementing permanent quality and process control systems. The Sawmill Improvement Program (SIP) conducts detailed on-site evaluations of sawmills to provide recommendations for improved efficiency in manufacturing lumber. Economic analyses show that values obtained from utilization improvements through SIP exceed their cost by 6.1. To date, over 1,000 evaluations have been conducted in both the Improved Harvesting and the Sawmill Improvement Programs.

In addition to activities in improved harvesting and sawmilling, the utilization program emphasizes activities in secondary processing and drying. Secondary wood processing represents all phases of additional manufacture after the initial product, such as lumber or veneer, has been produced from the tree or log. Drying is the single most troublesome problem in satisfactory wood use. Improper drying practices can greatly reduce the yield and quality of lumber production. Thus, in order to meet the demands for high quality lumber, the available timber resource must be unnecessarily harvested to make up for drying losses.

Improved housing technology is another part of secondary processing which receives attention. Gains were made in building lower-cost homes during 1982-1983 by the introduction of the Truss-Framed System. To date, this system has been used in 30 States where home builders have erected over 1,200 Truss-Framed houses. Cost savings are estimated to be as much as 25 percent below that of conventional shell construction.

Another activity in forest products utilization includes the processing of wood made available from formerly unused materials, fuels and by-products. Accomplishments in this activity offer opportunities for the small woodlot owner to manage low-value forest stands, a common stand condition in the East, through fuelwood sales.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Wood utilization	1,177	970	-207
FTE	20	13	-7

A decrease of \$207,000 will still allow for some technical assistance capability in construction, harvesting improvement, sawmill improvement, and wood use for energy. Emphasis will be directed toward increasing interaction between national utilization programs and technical service activities of regional and national industry associations. Successful development of such interaction will provide for an increased flow of information on productivity improvement concepts and methodology.

A decrease of \$1,000 associated with improved efficiencies in administrative support activities and \$4,000 associated with a phased reduction of positions in grades GS/GM 11-15 is within the budget proposal for this activity.

Object class information:

Salary and benefits	-178
Other contractual services	- 29
Total	-207

Seedlings, Nursery and Tree Improvement

Objectives: To provide genetically adapted and improved tree seed for planting and direct seeding of forest sites through assistance to States and to encourage increased reforestation by assisting States in furnishing quality, reasonably-priced tree seedlings to private landowners.

Program description: This program consists of two related activities: (1) Tree Improvement and (2) Tree Nursery Seedling Production.

1. Tree Improvement: This is the application of genetic principles to forest trees to improve:

- a. Growth rate and form.
- b. Resistance to insects and diseases.
- c. Desirable wood characteristics.
- d. Adaptation to climatic or human-caused conditions.

Federal assistance is provided by cost-sharing State tree improvement operations and delivering technical assistance to States to expedite State tree improvement programs.

Tree improvement work involves selecting superior trees in the forest, collecting their seeds, and testing the relative performance of the seedlings from these seeds to select the best parental types. Once these "best parents" are developed in the nursery, seedlings are grown and then planted. The successful orchard trees provide superior seeds which improve growth traits, such as growth rate and form, by as much as 25 percent.

Continued intensive selection results in future orchards which may produce trees that grow up to 50 percent faster. Once these gains are acquired, they last indefinitely. Currently, less than half of the tree seedlings provided to private nonindustrial landowners are genetically improved stock.

2. Tree Nursery Seedling Production: This portion of the program assists States in the harvesting, production, procurement, and distribution of forest tree seedlings and helps States make needed improvements and expansions at forest tree nurseries. State forest tree nurseries provide the essential link between the production of genetically improved seed from tree improvement programs and fast-growing plantations on nonfederal forest lands. The goal of this program is for high quality, reasonably priced tree planting stock to be available to private landowners for forest, wind-barrier, shelterbelt, woodlot, and other plantings.

Federal assistance has provided:

- a. Cost-share nursery operations in some States with relatively small programs.
- b. Delivery of technical assistance to nursery managers.
- c. Financial and technical assistance in special projects of nursery improvement and equipment development.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Seedlings, nursery and tree improvement	1,763	165	-1,598
FTE	16	3	-13

A decrease of \$1,598,000 will not allow continuance of Federal financial assistance to the States. It is expected that nursery and tree improvement in most States will continue, depending on individual State priorities. Federal technical assistance will emphasize basic nursery and tree improvement techniques in the Western, Southeastern, and Northeastern regions.

Object class information:

Salary and benefits	-331
Travel	-43
Supplies, materials and equipment	-35
Other contractual services	-59
Grants, subsidies and contributions	-1,130
Total.....	-1,598

Urban Forestry Assistance

Objective: To maximize the contribution urban forest resources make to improvement of soil, water, and air quality, additional timber supplies, energy production and conservation, and enhancement of community environment.

Program description: Provides Federal funds through State forestry agencies to encourage management of trees, forests, and associated natural resources in and near urban areas. Target audiences are planners, developers, builders, landscape architects, city foresters, citizen groups, tree service companies, forestry consultants, and homeowners.

Accomplishments are measured in terms of the number of community and urban areas assisted in a given year. In 1983, all 50 States and the territories participated in the program. Over 3,600 of the Nation's urban areas were assisted.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Urban forestry assistance	1,616	--	-1,616
FTE	6	--	-6

A decrease of \$1,616,000 will not allow this program to continue. It is anticipated that States and cities will continue these activities according to their overall priorities. The Forest Service program will continue to provide limited technical assistance consistent with responsibilities in overall Federal forestry management.

Object class information:

Salary and benefits	-153
Travel	-49
Supplies, materials and equipment	-39
Other contractual services	-69
Grants, subsidies and contributions	-1,306
Total	-1,616

Management Improvement

Objective: To develop, maintain, and improve a continuous resource analysis and planning process in each State; to prepare and guide comprehensive long-range programs for forestry protection and development to meet local, State, and national needs.

Program description: This program consists of Federal assistance to States in the planning and management of their forest resources. The following national goals for the States apply to the Federal interest and responsibility:

1. Identify opportunities and provide guidance for efficient investment of public and private funds in forest resource management.
2. Develop a permanent planning process for forest resources management in each State.
3. Develop an operational model which integrates the functions of planning, implementation, and control.
4. Provide accurate and standard forest resources data to RPA and other required planning efforts of national interest.

Most States have developed a basic planning process and one-third of the States have completed initial plans. Some States have used these plans and advanced analytical capabilities to influence policy direction through their own State Legislature, resulting in more independent forestry programs and the potential for a stronger State economy. However, most States are still in the learning and development phase of resource planning.

Federal technical and financial assistance in forest resource planning has improved and standardized input from the States into planning efforts of national importance, such as RPA. The current emphasis will be to assist States in linking their forest resource plans to budget processes, using resources planning capability for State economic growth and development, and providing assistance to monitor plan implementation. This is important as States assume independent financial and technical responsibilities for their own program.

The purpose and rationale for Federal assistance is to:

- provide technical planning services for State organizations.
- encourage some degree of consistency in the planning process for use in national planning, particularly in the Forest and Rangeland Renewable Resources Planning Act Assessment and Program.

--stimulate forest resource development in the States to aid the national economy and production base.

--increase the efficiency of combined State-private efforts for forest resource development.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Management improvement	1,000	520	-480
FTE	14	11	-3

Federal financial assistance to States will be discontinued. Depending on individual priorities, it is expected that some States will continue with initial planning efforts. Federal technical assistance will emphasize plan implementation and monitoring. Advanced capabilities, such as economic analysis, will be the primary responsibility of the States. In terms of attaining the national goals previously described the following is expected:

<u>Goal</u>	<u>Attainment</u>
1	one-quarter of the States
2	one-half of the States
3	one-fourth of the States
4	two-thirds of the States

Object class information:

Salary and benefits	- 76
Travel	- 14
Supplies, materials and equipment	- 10
Other contractual services	- 19
Grants, subsidies and contributions	-361
Total	-480

Special Projects

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
	(Dollars in thousands)				
Boundary Waters					
Canoe Area	3,000	3,000	3,000	3,000	--
FTE	--	--	--	--	--
Pinchot Institute for					
Conservation Studies ...	500	500	505	--	-505
FTE	15	15	15	--	-15
Lake Tahoe					
(P.L. 96-586)	--	3,340	3,340	--	-3,340
FTE	--	2	2	--	-2
Total	3,500	6,840	6,845	3,000	-3,845
FTE	15	17	17	--	-17

General: Special Projects involve activities that are designed to accomplish specialized objectives usually not available through other Forest Service programs. Current activities include the intensive forest management program associated with establishment of the Boundary Waters Canoe Area Wilderness in Minnesota, the Pinchot Institute for Conservation Studies, and water pollution control and for the mitigation of soil erosion in the Lake Tahoe Basin.

Boundary Waters Canoe Area

Objective: To provide technical and financial assistance to the State of Minnesota to implement the Boundary Waters Canoe Area Wilderness legislation.

Program description: The Boundary Waters Canoe Area project provides for an intensive forest management program within the State of Minnesota on State, county and private lands.

Under Section 6 of P.L. 95-495, intensive forest management activities are being concentrated in the five northeastern Minnesota Counties of Lake, Cook, St. Louis, Koochiching, and Carlton to help prevent reduction in the sustained yield of softwood timber. In fiscal year 1983, the State provided \$750,000 that was cost-shared with \$3,000,000 of Federal funds for this effort. Program accomplishments during 1983 included reforestation of 20,000 acres, stand improvement on 10,000 acres, road maintenance and improvement of 1,200 miles, and production of 21 million seedlings. Targets for fiscal year 1984 and 1985 for the same activities include:

	<u>FY 1984</u> <u>(planned)</u>	<u>FY 1985</u> <u>(planned)</u>
Reforestation (acres)	17,000	15,400
Timber stand improvmenet (acres)	10,000	10,000
Road maintenance and improvement (miles) ...	610	610
Seedling production (MM seedlings)	26	26

The FY 1985 budget proposal provides \$3,000,000 for the grant to Minnesota for the intensive forest management program.

Pinchot Institute for Conservation Studies

Objective: To restore and manage the Grey Towers National Historic Landmark as a unique cultural and historic resource for interpreting the development of American forestry and natural resources conservation; to advance excellence in natural resource conservation and facilitate the use of the Institute and Grey Towers as a conference center and retreat site for conservation organizations and agencies; and to provide a national urban forestry information and communications center focal point.

Program description: The Pinchot Institute for Conservation Studies is a special unit of the Forest Service located at the Grey Towers National Historic Landmark in Milford, Pennsylvania. Grey Towers is a 101-acre, 19th century estate which was the home of Gifford Pinchot, pioneer conservationist, founder, and first Chief of the Forest Service and Governor of Pennsylvania.

A significant accomplishment during 1983 was the establishment of the "National Friends of Grey Towers." The goal of this national non-profit, educational foundation is to maintain the historic quality of the Pinchot home and assist in expanding the use of Grey Towers.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Pinchot Institute	505	--	-505
FTE	15	--	-15

The decrease of \$505,000 eliminates specific funding for the Pinchot Institute for Conservation Studies.

Object class information:

Salary and benefits	-476
Travel	-5
Rents, communications, and utilities	-12
Supplies, material and equipment	-5
Other contractual services	-7
Total	-505

Funding is proposed from benefiting appropriations within the Forest Service regular line item budget. No tours will be conducted, although the estate will be open to visitors during regular work hours. The following table illustrates this proposal:

**Funding Table
Pinchot Institute - FY 1985
(Actual dollars)**

Forest Research	\$ 17,000
State and Private Forestry	17,000
National Forest System	209,000
Construction	<u>37,000</u>
TOTAL,	\$280,000

Lake Tahoe (P.L. 96-586)

Objective: To control water pollution and to mitigate soil erosion on State and Federal lands within the Lake Tahoe Basin.

Program description: Based on amounts appropriated for land acquisition within the Lake Tahoe Basin, funds are provided to implement Section 2 (g) and (h) of P.L. 96-586. The funds are for soil erosion activities and control of water pollution on State and Federal lands within the Lake Tahoe Basin. For State lands, funds are allocated proportionately among political subdivisions (through or in concurrence with the States of California and Nevada) based on the amount of acres acquired by the Federal government in each political subdivision. For National Forest System lands, the Lake Tahoe Basin Management Unit utilizes these Special Projects funds for watershed restoration work. Activities include: obliteration and revegetation of unneeded roads and trails, structural slope stabilization, stream environment zone rehabilitation, closure and rehabilitation of sanitary land fills, and road drainage upgrading.

In fiscal year 1984 \$2,505,000 of these special project funds is targeted to State lands while \$835,000 is targeted for work on National Forest System lands.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u> (Dollars in thousands)	<u>Decrease</u>
Lake Tahoe (P.L. 96-586)\$	3,340	--	-3,340
FTE	2	--	-2

A decrease of \$3,340,000 will discontinue special funding for soil erosion activities and water pollution control efforts that are associated with lands acquired by the Federal government within the Lake Tahoe Basin and grants to local jurisdictions. The National Forest System Soil, Water and Air program will continue to assign priorities on a nationwide basis for funding improvement projects.

Object class information:

Salary and benefits	-65
Travel	-6
Contracts	-764
Grants	-2,505
Total	-3,340

Distribution of Funds

The following tables show the geographic distribution of funding support for State and Private Forestry programs for FY 1983 - FY 1985.

Geographic Breakdown of State and Private Forestry
FY 1983 - Actual
(Dollars in thousands)

State	FPM	Fire	FM&U	Special Projects	Total
Alabama	341	301	410	0	827
Alaska	0	242	154	0	396
Arizona	18	103	123	0	244
Arkansas	66	279	285	0	630
California	80	783	200	0	1,063
Colorado	213	297	130	0	640
Connecticut	0	68	70	0	138
Delaware	22	55	65	0	142
Florida	62	367	427	0	856
Georgia	192	357	398	0	947
Guam	5	50	53	0	108
Hawaii	18	75	71	0	164
Idaho	34	231	112	0	379
Illinois	0	114	119	0	233
Indiana	31	76	139	0	246
Iowa	21	69	66	0	156
Kansas	21	167	121	0	309
Kentucky	0	241	319	0	560
Louisiana	66	305	273	0	644
Maine	79	252	145	0	476
Maryland	961	173	162	0	1,130
Massachusetts	32	157	103	0	292
Michigan	69	324	195	0	588
Minnesota	61	242	216	2,997	3,516
Mississippi	131	311	323	0	765
Missouri	51	288	259	0	598
Montana	38	270	134	0	442
Nebraska	21	162	115	0	298
Nevada	21	152	69	0	242
New Hampshire	36	112	126	0	272
New Jersey	723	201	117	0	1,041
New Mexico	37	156	92	0	289
New York	65	285	304	0	654
North Carolina	87	360	458	0	905
North Dakota	18	67	67	0	152
Ohio	39	170	147	0	356
Oklahoma	31	165	135	0	331
Oregon	290	367	210	0	902
Pennsylvania	2498	332	255	0	3,014
Puerto Rico	0	50	182	0	232
Rhode Island	97	56	54	0	207
South Carolina	206	324	298	0	828
South Dakota	19	229	94	0	342
Tennessee	66	292	229	0	587
Texas	75	261	305	0	641
Utah	0	137	138	0	275
Vermont	51	50	150	0	301
Virgin Island	0	26	27	0	53
Virginia	82	316	460	0	858
Washington	62	360	219	0	641
West Virginia	155	179	140	0	473
Wisconsin	58	323	221	0	602
Wyoming	5	149	80	0	234
Washington, D.C.....	0	0	14	0	14
Total States	\$ 7,364	11,478	9,778	2,997	31,233
S&PF Administration	9,977	2,933	7,302	503	21,099
Special Projects	1,240	0	0	0	1,240
Suppression on Federal Lands.	9,263	0	0	0	9,263
Total Program	\$ 27,844	14,411	17,080	3,500	62,835

Geographic Breakdown of State and Private Forestry
FY 1984 - Estimate
(Dollars in thousands)

State	FPM	Fire	FM&U	Special Projects	Total
Alabama	83	287	163	0	533
Alaska	0	198	50	0	248
Arizona	16	69	64	0	149
Arkansas	60	259	111	0	430
California	41	773	103	2,505	3,422
Colorado	26	284	66	0	376
Connecticut	0	55	58	0	113
Delaware	16	50	54	0	120
Florida	57	351	182	0	590
Georgia	102	333	200	0	635
Guam	0	50	33	0	83
Hawaii	16	72	60	0	148
Idaho	32	211	63	0	306
Illinois	0	110	81	0	191
Indiana	30	71	85	0	186
Iowa	19	57	61	0	137
Kansas	19	160	73	0	252
Kentucky	50	231	141	0	422
Louisiana	60	292	124	0	476
Maine	70	242	75	0	387
Maryland	24	154	82	0	260
Massachusetts	16	151	64	0	231
Michigan	61	294	117	0	472
Minnesota	53	223	98	3,000	3,374
Mississippi	63	298	154	0	515
Missouri	46	274	138	0	458
Montana	34	234	70	0	338
Nebraska	19	155	63	0	237
Nevada	16	127	60	0	203
New Hampshire	30	108	61	0	199
New Jersey	21	193	68	0	282
New Mexico	32	137	59	0	228
New York	56	273	132	0	461
North Carolina	80	316	254	0	650
North Dakota	16	64	61	0	141
Ohio	35	164	102	0	301
Oklahoma	28	158	73	0	259
Oregon	54	316	123	0	493
Pennsylvania	63	300	140	0	503
Puerto Rico	0	50	59	0	109
Rhode Island	16	54	54	0	124
South Carolina	54	301	127	0	482
South Dakota	17	219	63	0	299
Tennessee	52	270	144	0	466
Texas	54	249	155	0	458
Utah	0	115	60	0	175
Vermont	28	50	72	0	150
Virgin Island	0	26	28	0	54
Virginia	61	302	220	0	583
Washington	57	319	120	0	496
West Virginia	45	172	74	0	291
Wisconsin	53	291	139	0	483
Wyoming	18	135	58	0	211
Washington, D.C.	0	0	14	0	14
Total, States	\$ 1,899	10,647	5,153	5,505	23,204
S&PF Administration	15,807	3,353	5,524	500	25,184
Special Projects	1,245	0	0	835	2,080
Suppression on Federal Lands.	<u>10,111</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>10,111</u>
Total, Program	\$ 29,062	14,000	10,677	6,840	60,579

Geographic Breakdown of State and Private Forestry
FY 1985 - Estimate
(Dollars in thousands)

State	FPM	Fire	FM&U	Special Projects	Total
Alabama	0	0	0	0	0
Alaska	0	0	0	0	0
Arizona	0	0	0	0	0
Arkansas	0	0	0	0	0
California	0	0	0	0	0
Colorado	0	0	0	0	0
Connecticut	0	0	0	0	0
Delaware	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	0	0	0	0	0
Guam	0	0	0	0	0
Hawaii	0	0	0	0	0
Idaho	0	0	0	0	0
Illinois	0	0	0	0	0
Indiana	0	0	0	0	0
Iowa	0	0	0	0	0
Kansas	0	0	0	0	0
Kentucky	0	0	0	0	0
Louisiana	0	0	0	0	0
Maine	0	0	0	0	0
Maryland	0	0	0	0	0
Massachusetts	0	0	0	0	0
Michigan	0	0	0	0	0
Minnesota	0	0	0	3,000	3,000
Mississippi	0	0	0	0	0
Missouri	0	0	0	0	0
Montana	0	0	0	0	0
Nebraska	0	0	0	0	0
Nevada	0	0	0	0	0
New Hampshire	0	0	0	0	0
New Jersey	0	0	0	0	0
New Mexico	0	0	0	0	0
New York	0	0	0	0	0
North Carolina	0	0	0	0	0
North Dakota	0	0	0	0	0
Ohio	0	0	0	0	0
Oklahoma	0	0	0	0	0
Oregon	0	0	0	0	0
Pennsylvania	0	0	0	0	0
Puerto Rico	0	0	0	0	0
Rhode Island	0	0	0	0	0
South Carolina	0	0	0	0	0
South Dakota	0	0	0	0	0
Tennessee	0	0	0	0	0
Texas	0	0	0	0	0
Utah	0	0	0	0	0
Vermont	0	0	0	0	0
Virgin Island	0	0	0	0	0
Virginia	0	0	0	0	0
Washington	0	0	0	0	0
West Virginia	0	0	0	0	0
Wisconsin	0	0	0	0	0
Wyoming	0	0	0	0	0
Washington, D.C.....	0	0	0	0	0
Total States	\$ 0	0	0	3,000	3,000
S&PF Administration	11,855	3,065	3,890	0	18,810
Special Projects	695	0	0	0	695
Suppression on Federal Lands.	3,000	0	0	0	3,000
Total, Program	\$ 15,550	3,065	3,890	3,000	25,505

STATE AND PRIVATE FORESTRY
PROGRAM AND FINANCING (in thousands of dollars)

Identification code: 12-1105-0-1-302		1983 actual	1984 est.	1985 est.
Program by activities:				
Direct program:				
1. Forest pest management		27,577	25,402	16,932
2. Fire protection		13,845	12,753	3,337
3. Forest management and utilization .		15,926	14,670	4,236
4. Special projects		3,496	6,005	3,000
Total direct program		60,844	58,830	27,505
Reimbursable program		3,183	4,400	1,900
10.00 Total obligations		64,027	63,230	29,405
Financing:				
Offsetting collections from:				
11.00 Federal funds		-2,837	-3,921	-1,693
14.00 Non-federal sources		-346	-479	-207
17.00 Recovery of prior year obligations		-246	--	--
21.40 Unobligated balance available start of year		-2,971	-2,991	-4,914
24.40 Unobligated balance available, end of year		2,991	4,914	2,914
25.00 Unobligated balance lapsing		2,217	--	--
39.00 Budget authority		62,835	60,753	25,505
Budget authority:				
40.00 Appropriation		62,835	60,579	25,505
Transfers in for:				
46.20 Civilian pay raises		--	174	--
Relation of obligations to outlays:				
71.00 Obligations incurred, net		60,844	58,830	27,505
72.40 Obligated balance, start of year		18,556	12,699	12,208
74.40 Obligated balance, end of year		-12,699	-12,208	-8,421
78.00 Adjustment in unexpired accounts		-246	--	--
90.00 Outlays, excluding pay raise supplemental		66,455	59,154	31,285
91.20 Outlays from civilian pay raise supplemental		--	167	7

STATE AND PRIVATE FORESTRY
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:	1983 actual	1984 est.	1985 est.
12-1105-0-1-302			
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	15,046	15,476	11,736
11.3 Other than full-time permanent	1,580	1,801	1,266
11.5 Other personnel compensation	455	295	224
11.8 Special personnel service payments ..	6	4	3
11.9 Total personnel compensation	17,087	17,576	13,229
Personnel benefits:			
12.1 Civilian	2,017	1,883	1,417
13.0 Benefits for former personnel	76	71	53
21.0 Travel and transportation of persons.	2,420	1,247	1,446
22.0 Transportation of things	220	113	140
23.1 Standard level user charges	810	1,092	998
23.2 Communications, utilities, and other rent	746	384	476
24.0 Printing and reproduction	477	246	305
25.0 Other services	7,485	3,855	4,879
26.0 Supplies and materials	658	339	420
31.0 Equipment	413	213	264
32.0 Lands and structures	107	55	68
41.0 Grants, subsidies and contributions .	26,549	30,204	3,000
42.0 Insurance claims and indemnities	2	1	1

STATE AND PRIVATE FORESTRY
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code: 12-1105-0-1-302		1983 actual	1984 est.	1985 est.
44.0	Refunds	796	410	509
99.0	Subtotal direct obligations	59,863	57,689	27,205
99.0	Reimbursable obligations	3,183	4,400	1,900
ALLOCATION TO THE BUREAU OF LAND MANAGEMENT				
41.0	Grants subsidies, and contributions ..	981	1,141	300
99.9	Total obligations	64,027	63,230	29,405

FOREST SERVICE STATE AND PRIVATE FORESTRY

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-1105-0-1-302			
Direct:			
Total number of full-time permanent positions	583	561	449
Total compensable workyears:			
Full-time equivalent employment	630	623	496
Full-time equivalent of overtime and holiday hours	11	12	10
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800
Reimbursable:			
Total number of full-time permanent positions	10	10	7
Total compensable workyears: Full-time equivalent employment	8	8	6
Average ES salary	--	--	--
Average GS grade	12.51	12.51	11.43
Average GS salary	33,300	33,300	28,290
Average salary of ungraded positions ...	--	--	--

NATIONAL FOREST SYSTEM

	1983 <u>Actual</u>	1984 Appropriation <u>Enacted to Date</u>	1985 <u>RPA</u>	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc. (+) or Dec. (-) <u>from 1984</u>	Inc. (+) or Dec. (-) <u>from Base</u>
	(Dollars in thousands)						
Minerals Area							
Management \$	22,598	25,405	35,991	26,023	29,085	+3,680	+3,062
FTE	630	686	---	686	745	+59	+59
* Real Estate							
Management \$	19,935	18,524	52,896	18,955	21,263	+2,739	+2,308
FTE	527	480	---	480	525	+45	+45
Land Line							
Location \$	25,034	29,193	48,539	29,780	28,595	-598	-1,185
FTE	581	661	---	661	635	-26	-26
Maintenance of							
Facilities \$	21,710	13,982	32,588	14,177	16,091	+2,109	+1,914
FTE	318	227	---	227	260	+33	+33
Forest Fire							
Protection \$	153,889	154,938	206,994	159,163	159,875	+4,937	+712
FTE	4,600	4,656	---	4,656	4,669	+13	+13
Fighting Forest							
Fires \$	1,000	1,000	1,000	1,000	1,000	---	---
FTE	(169)	(169)	---	(169)	(169)	---	---
Cooperative Law							
Enforcement \$	5,174	5,171	11,065	5,174	5,307	+136	+133
FTE	12	12	---	12	12	---	---
Forest Road							
Maintenance \$	73,666	64,164	99,803	65,270	66,267	+2,103	+997
FTE	1,403	1,261	---	1,261	1,280	+19	+19
Forest Trail							
Maintenance \$	13,988	9,162	19,351	9,408	8,377	-785	-1,031
FTE	400	272	---	272	243	-29	-29
Timber Sales							
Admin. and							
Mgmt. \$	162,125	185,389	228,477	190,468	199,856	+14,467	+9,388
FTE	5,108	5,596	---	5,596	5,773	+177	+177

		1983	1984	1985	1985	1985	Inc. (+) or Dec. (-) from 1984	Inc. (+) or Dec. (-) from Base
		Actual	Appropriation Enacted to Date	RPA	Base	Estimate		
Reforestation and Stand Improve- <u>1/</u> ment	\$	57,963	<u>2/</u> 19,516	116,660	21,317	50,344	+30,828	+29,027
FTE		953	351	---	351	935	+584	+584
Recreation Use	\$	99,774	99,789	231,614	102,443	97,540	-2,249	-4,903
FTE		2,923	2,930	---	2,930	2,830	-100	-100
Wildlife and Fish Habitat Manage- ment	\$	33,349	35,008	50,788	35,828	33,963	-1,045	-1,865
FTE		893	912	---	912	874	-38	-38
Range Manage- ment	\$	27,031	26,992	44,484	27,752	26,124	-868	-1,628
FTE		719	713	---	713	682	-31	-31
Soil and Water Management	\$	28,713	29,676	44,824	30,324	28,890	-786	-1,434
FTE		713	725	---	725	697	-28	-28
General Admin.	\$	260,915	257,610	321,173	262,807	264,382	+6,772	+1,575
FTE		6,099	5,846	---	5,846	5,715	-131	-131
Youth Conserva- tion Corps	\$	<u>3/</u> 3,400	--	--	--	--	--	--
FTE		37	--	--	--	--	--	--
Sub- total	\$	1,006,864	975,519	1,546,247	999,889	1,036,959	+61,440	+37,070
FTE		25,879	25,328	---	25,328	25,875	+547	+547
Total, NFS	\$	1,010,264	975,519	1,546,247	999,889	1,036,959	+61,440	+37,070
FTE		25,916	25,328	---	25,328	25,875	+547	+547

1/ Appropriated Funds only. Balance of funding from Reforestation Trust Fund and KV.

2/ Includes \$35,000,000 of Job's Bill funding for FY 1983 only.

3/ \$10,000,000 was appropriated as follows: \$3,400,000 to the Forest Service - National Forest System; \$3,300,000 to the USDI - Park Service; and \$3,300,000 to the USDI - Fish and Wildlife Service.

* "Real Estate Management" title replaces previous budget line item title "Land Management Activities".

Appropriation Summary Statement

This appropriation provides the funds for the protection and management of about one-third of all Federal land in the United States--the 191 million acres of the National Forest System (NFS) located in 44 states, Puerto Rico and the Virgin Islands. The National Forest System is a national resource which will not only return \$1.6 billion to the Treasury in 1985, but will continue to have major environmental and social value for millions of Americans. A significant portion of the receipts for goods and services from these lands will be returned to the States for distribution to counties (more than \$143 million in FY 1983).

The following examples typify the importance of National Forest System lands to the welfare of the American people:

1. Wood Products. Nearly one-third of the Nation's annual softwood sawtimber harvest comes from NFS lands. A continuous supply of softwood sawtimber is essential to produce the lumber and plywood needed to build homes and for other construction, as well as other wood products. NFS lands contain over one-half of the Nation's standing softwood sawtimber inventory and thus, plays a vital role in meeting the Nation's wood product needs in the upcoming decades. Enough wood is sold from NFS lands to build over one million homes annually. This harvest is well within the capacity of National Forests to produce timber on a sustained yield basis in an environmentally sound manner. Reforestation and timber stand improvement activities are carried out to ensure the maintenance of a high level of productivity.

2. Coal, Oil, Gas, and Other Minerals. About one-fourth of the Nation's potential domestic energy resources are on (or under) NFS lands. These include about 50 billion tons of coal (12 billion of which have potential to be surfaced mined) in the National Forests in Montana, Utah, and Wyoming. Production from NFS lands during 1983 was estimated at 14 million tons. Production levels will probably double within the next few years as existing mines increase production and new mines start producing.

An estimated 34 million acres of NFS lands are under lease for oil, gas, geothermal and other minerals. Mineral activity on National Forests and National Grasslands generated receipts of about \$133 million from rents, royalties, sales, and bonus bids in 1983. In this activity, Forest Service responsibility is to encourage the environmentally responsible exploration and development of mineral resources in cooperation with Department of the Interior agencies.

Over 30,000 operating plans and lease applications were processed and/or administered in fiscal year 1983.

3. Outdoor Recreation. The National Forests are called "America's Playground," for each year they provide 40 percent of all recreation use of Federal lands. In 1983, the use of the forests for various recreational pursuits amounted to approximately 228 million visitor days. This is equal to each American spending over 12 hours somewhere on the National Forest System. Among the facilities and sites available to them were:

- 98,500 miles of trails, including about 60 percent of the National Recreation Trail System. This constitutes approximately 3,500 miles, some of which are designed for people with physical disabilities.

- More than 4,400 campgrounds.

- Many of the commercial ski areas and popular cross-country ski areas, which are located wholly, or in part, on National Forests.

- Nine National Recreation Areas and all or part of 16 National Wild and Scenic Rivers.

- Twenty-five million acres (about 30 percent) of the National Wilderness Preservation System.

Fees paid for recreation-related uses of the National Forests and Grasslands amounted to \$27.8 million in 1983. The Forest Service is exploring opportunities for increasing revenue from recreation use so it more nearly pays its way.

4. Livestock Grazing. More than 14,000 ranchers and farmers pay for permits to graze 9.8 million animal unit months on the 102 million acres of grassland, open forests and other forage-producing areas of the National Forest System. These individuals are highly dependent upon National Forest System lands to compliment livestock ranching operation on their privately-owned lands. Without National Forest System grazing, many of these livestock operations would not be economically sound.

Emphasis is placed on managing the permitted livestock use of 9.8 million animal units and enhancing water quality and quantity, soil productivity and stability, wildlife habitat, and esthetics. The Forest Service will continue to provide forage to promote the economic stability of dependent livestock producers and rural communities at the 1984 level.

5. Hunting, Fishing and Viewing. The National Forests and Grasslands are favorite places for millions of Americans to hunt and fish. In cooperation with the States, the Forest Service manages and improves wildlife and fish habitat to provide for wildlife and fish commercial and noncommercial uses. The fresh water lakes and streams of the National Forest System provides a bounty of fish, including trout, bass, and salmon. Sixteen and one-half million fisherman days occur on these lands. A commercial salmon catch valued in excess of \$65 million is harvested annually.

Hunters spend 16.2 million days in the field pursuing large game, such as elk, deer and bighorn sheep; and small game, such as quail, grouse and waterfowl. Bird watchers, photographers and others engaging in nature study spend over 1.5 million days per year enjoying the wildlife and fish resources.

6. Soil, Water and Air. One of the original purposes for establishing National Forests was to secure favorable conditions of water flow. Much of the Nation's water supply flows from these lands located in the headwaters of the major river systems. In the sixteen western States, where the water supply is sometimes critically short and may constrain future growth, about 55 percent of the total annual yield of water is from National Forest System lands. In the eastern States, these lands are often strategically located in the headwaters of important watersheds.

A healthy watershed condition is critical to continued production of goods and services, including high quality water, from National Forest System lands. Watershed condition is a description of the health of a watershed or portion of a watershed in terms of its hydrologic functioning and soil productivity. Soil scientists and hydrologists provide the land manager with information needed to plan and carry out resource management in a manner that assures desired watershed conditions will be maintained or enhanced.

The Forest Service has a dual role in complying with requirements of the Clean Air Act. First, it must conduct its own resource management activities in a way that does not contribute to the degradation of air quality below established standards. Additionally, it is responsible to protect air quality related values, particularly in eighty-eight Federally designated class I (Wilderness) areas, from damage which would result from air pollution.

7. Real Estate and Special Uses. A wide variety of real estate activities are associated with managing the National Forest System. Such activities are essential to improving the efficiency of the Agency's land management activities.

- Providing for the needs of other ownerships. The gross area within the National Forest System unit boundaries includes about 39 million acres of land belonging to others, such as private individuals, corporations, or the various States.

- Exchanging land to improve ownership patterns. Land is exchanged at fair market value to improve land ownership patterns. During the last three years, 387,000 acres of non-federal land were acquired in exchange for 232,000 acres of Federal land.

- Locating land lines. Land lines are located to identify legal boundaries between National Forest System and other ownerships. Accurate boundaries are needed to avoid trespass either into or from the National Forest System or private property. Trespass onto public land is increasing by about 2,000 cases annually.

- Purchasing land. The Forest Service purchases land principally for purposes of watershed protection, timber production, recreation use and the management of wildlife and protection of endangered species. Donations and the acquisition of partial interest, such as scenic easements, are growing in importance in the National Forest System.

- Acquiring rights-of-way. The National Forest System each year acquires about 1,000 miles of rights-of-way for access to public land. Ninety-nine percent of the cases are settled through negotiation. Condemnation procedures are rarely needed.

- Small Tracts Act. During past years an estimated 50,000 landowners have innocently encroached on National Forest System lands. Each year, the Forest Service will resolve a portion of these cases through sale, interchange of title, or exchange.

- Land Status (including title claims). Land status is the record keeping of the National Forest System managed real estate. This includes partial interest, incumbrances, and use restrictions. Ownership status is essential to efficient management of the resources.

- Special Uses. The special uses of the National Forest System are many and varied. With Federal and other government agencies, use is arranged through interagency agreements. For example, military operations are conducted on thousands of acres of NFS land each year. Others gain use of the land by special permit. Approximately 48,000 non-recreational special uses are authorized by permit, such as for TV antenna sites, private roads, and utility lines. Over \$4.2 million was collected in special land use fees in 1983.

8. Transportation System and Structures. The management of the NFS is supported by the world's largest network of roads and trails under a single jurisdiction--about 320,000 miles of permanent roads at the close of fiscal year 1983. Each year, between 8,000 to 10,000 miles of roads and more than 100 bridges are constructed or reconstructed in the National Forest System; the majority by timber purchasers.

The Forest Service manages approximately 12,000 buildings. About half of them are 40 or more years old.

Authorities:

The Act of June 4, 1897, Organic Administration Act of 1897, as amended
(16 U.S.C. 473-478, 479-482, 551)

Section 24

Administrative, Protection and Management
(05-96) 12-1100 302 SAGR HAGR

Such sums as are appropriated by Congress, no expiration date specified.

P.L. 68-575, The Act of March 3, 1925, as amended (16 U.S.C. 555)

Section 5

Purchase of land and acceptance of donations of land.

Such sums as are necessary, not to exceed \$50,000 per fiscal year;
no expiration date specified.

P.L. 75-210, Title III, The Bankhead-Jones Farm Tenant Act of July 22, 1937,
as amended (7 U.S.C. 1010, 1011)

Sections 31 and 32

Land acquisition, exchange and authorities to correct
maladjustments for land utilization purposes.

Such sums as are necessary, no expiration date specified.

P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944
(7 U.S.C. 2250)

Section 703

Erect, alter and repair buildings necessary to carry out authorized
work.

Section 205

16 U.S.C. 5799

P.L. 81-348, Act of October 11, 1949, (Anderson-Mansfield Reforestation and
Vegetation Act (16 U.S.C. 581j); P.L. 92-421, Supplemental National
Forest Reforestation Fund (16 U.S.C. 516c)

Sections 1 and 2

Reforestation

(05-96) 12-1100 302SAGR HAGR

Such sums as are needed, no expiration date specified.

P.L. 86-797, Sikes Act as Amended by P.L. 97-396 (16 U.S.C. 670o(b))

Sections 1-3

Cooperative wildlife agreements for habitat improvements.

Authorization: \$12,000,000

Expire September 30, 1985

P.L. 84-979, The Act of August 3, 1956 (7 U.S.C. 428a)

Section 11

Land or interests in land by purchase, exchange or otherwise.

Such sums specified by annual appropriation, no expiration date
specified.

P.L. 88-657, Act of October 13, 1964, National Forest Roads and Trails
Systems Act (16 U.S.C. 532-538)

Sections 1-7

Construction and maintenance of forest development roads and trails.

(05-96) 12-2262 302 SEPW HPWT SENR HIIA

Such sums as are appropriated by Congress, no expiration date specified.

P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a)

Section 1

Erection and leasing of buildings, structures and land from non-Federal sources.

Such sums as are appropriated, no expiration date specified.

P.L. 90-543 National Trails System Act, as amended by P.L. 98-11 (16 U.S.C. 1241 et seq.)

Section 10 - Various

P.L. 90-583, Carlson-Foley Act of 1968 (43 U.S.C. 1241-1243)

Section 3

Rangeland management, noxious farm weed control

Such sums as are appropriated by Congress, no expiration date specified.

P.L. 92-82, Sisk Act of 1971 (16 U.S.C. 551a); Cooperative Law Enforcement
No specific authorization

P.L. 92-421, Act of September 18, 1972, Supplemental National Forest
Reforestation Fund Act (16 U.S.C. 576c-e)

Tree planting and seeding of National Forest lands

Authorization: Section 1; \$65,000,000 annually.

Expires June 30, 1987

P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act,
August 17, 1974, as amended (16 U.S.C. 1601 note)

Sections 2, 3, 4, and 5

Forest resources planning and evaluation

(05-96) 12-1100 302 SAGR HAGR

Such sums as are appropriated by Congress, no expiration date specified.

P.L. 94-579, Federal Land Policy and Management Act of 1976 (43 U.S.C. 1751);
Section 401; as amended by P.L. 95-514, Public Rangelands Improvement
Act of 1978, 92 Stat. 1803 (43 U.S.C. 1901-1908)

Sections 5 and 9

Range Management

(05-96) 12-5207 302 SAGR HAGR

Such sums as may be necessary.

P.L. 94-588, National Forest Management Act of 1976, October 22, 1976
(16 U.S.C. 472a-i)

Sections 1-14

Amends Forest and Rangeland Renewable Resources Planning Act of 1974.
(05-96) 12-5204 302 SAGR HAGR

Such sums as are appropriated by Congress, no expiration date specified.
Reforestation - \$200,000 annually

P.L. 95-495, Act of October 21, 1978, 92 Stat. 1649

Sections 5(d), 6(c)(1-2), 6(d)(1-2), 11(f), 18(e), and 19

Establishing the Boundary Waters Canoe Area Wilderness and Boundary
Waters Canoe Area Mining Protection Area.

Authorization: Section 6(c)(2) \$3,000,000 additional for grants to the
State for resource management activities.

Section 6(d)(1) \$8,000,000 for resource management on the
Superior National Forest.

Sections 5(d), 11(f), 18(e), and 19 such sums as
necessary.

No expiration date specified.

P.L. 96-95, Act of October 31, 1979, Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-ee)
Sections 4-13

Such sums as are specified by Congress, no expiration date specified.

P.L. 96-487, Act of December 2, 1980, Alaska National Interest Lands Conservation Act
Sections 101-103, 501-507, 703-708, 1201-1203, 1301-1328
Authorization: Section 705(a) about \$40,000,000 annually
Section 705(b) \$5,000,000 annually

Such sums as are appropriated by Congress, no expiration date specified.

P.L. 96-554, Act of December 19, 1980, Wood Residue Utilization Act of 1980 (16 U.S.C. 1681-1687)
Section 8
Pilot projects and demonstrations
Authorization: \$25,000,000 annually through FY 1986 of which \$2,500,000 of the amount may be appropriated for General Administration.

P.L. 97-465, Small Tracts Act, January 12, 1983, (96 Stat. 2535, (16 U.S.C. 521c-521i))
Provides authority for Secretary of Agriculture to dispose of certain categories of National Forest System lands, including irregularly shaped tracts, interspersed with mineral claims, tracts innocently encroached upon by private parties, and road rights-of-way that are excess to the needs of the United States.

Additional Authorities are provided in each of the acts establishing National Recreation Areas, Wilderness Acres, and other specific areas.

Minerals Area Management

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands/Accomplishments)	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc.(+) or Dec.(-) from Base
Leasable Minerals \$	9,623	11,489	11,769	13,774	+2,005
Cases completed.....	15,775	10,630	10,630	11,586	+956
FTE	268	310	310	352	+42
Locatable Minerals \$	8,166	8,958	9,176	9,557	+381
Cases completed.....	9,100	5,970	5,970	6,249	+279
FTE	228	242	242	245	+3
Common Variety Minerals \$	2,895	2,875	2,945	3,966	+1,021
Cases completed.....	5,460	3,777	3,777	3,497	-280
FTE	81	78	78	102	+24
Geology..... \$	1,914	2,083	2,133	1,788	-345
FTE	53	56	56	46	-10
Total \$	22,598	25,405	26,023	29,085	+3,062
FTE	630	686	686	745	+59
Cases completed.....	30,335	20,377	20,377	21,332	+955

General: Satisfying the Nation's need for raw materials to support economic growth depends in large measure on domestic mineral and fuel production from private and Federal lands. Private industry initiates the responses to this need and, where National Forest System (NFS) lands are involved, the Forest Service guides and facilitates it.

Under existing laws, Federal mineral and energy resources are categorized as leasable, locatable, and common variety. Depending on the category, the Forest Service evaluates applications or proposals by industry to explore and develop these resources on NFS lands. Based on the evaluations and in cooperation with the Department of the Interior, which has the primary responsibility for management of mineral and energy resources on Federal lands, the Forest Service develops procedures and requirements for minerals activities. This provides coordination with other resource values and uses. Funding for the Forest Service's minerals program also covers special-use permit issuance (e.g., roads and pipelines) and administration when the use is part of a mineral development project on NFS lands.

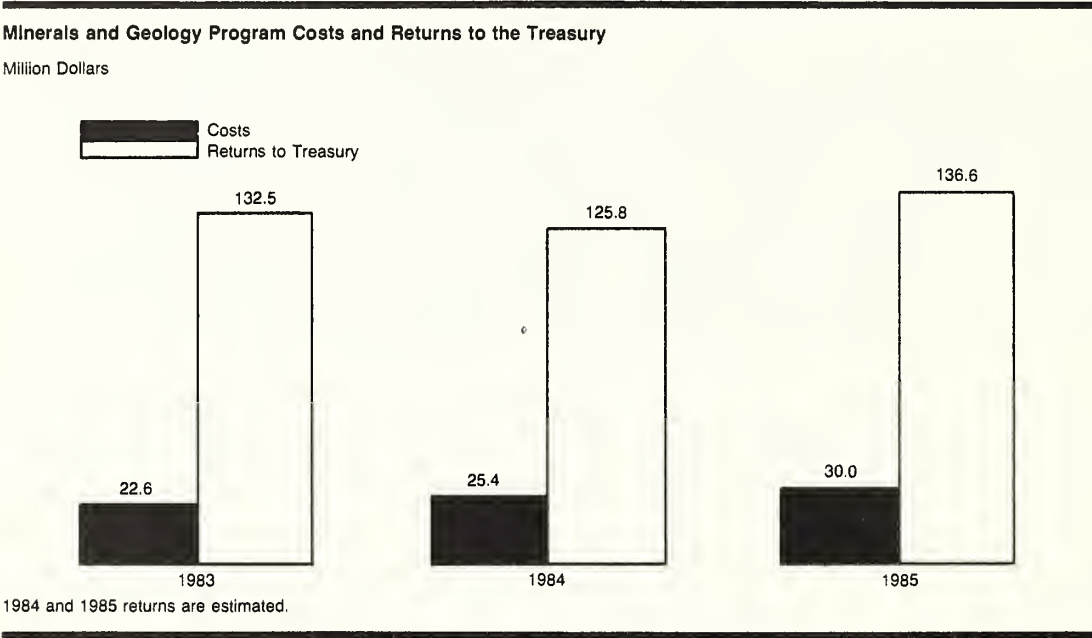
The principal cooperating agencies of the Department of the Interior are the Bureau of Land Management, Bureau of Mines, Office of Surface Mining, and Geological Survey. An example of cooperation between Federal Agencies is the recent agreement between the Forest Service and Bureau of Land Management, which will result in increased efficiency in minerals leasing and development. This new agreement includes: (1) streamlining of pre and post-leasing preparation, review, and approval of National Environmental Policy Act documents; (2) improved consistency in the application of mineral lease stipulations; (3) more efficiency in the administration of surface management responsibilities on mineral leases; and (4) reduction of delays in case work through the use of computers and electronic telecommunications.

The level of industrial activity in any given year is influenced by economic conditions. This level has fluctuated significantly over the past several years. Therefore, the number of new cases (applications/proposals and operating plan administration) and planned case completions continue to be difficult to project for a given future period of time.

The proposed level of funding provides for processing and administration of 21,332 cases. The fiscal year 1983 ending inventory was 4,400 cases. The inventory of unprocessed cases at the end of fiscal year 1985 is expected to hold at approximately 5,000 to 6,000.

As of November 1983, the inventory included 900 unprocessed lease applications in congressionally designated wilderness, 300 in wilderness study areas, 700 in RARE II recommended wilderness, and 500 in RARE II further planning areas. These have not been processed, in response to congressional direction in fiscal year 1983, and will not be processed in accordance with the fiscal year 1984 Appropriations Act.

The minerals and geology program costs and receipts from rents, royalties, sales, and bonus bids (returns to the Treasury) for activities on NFS lands are shown on the following chart:



Geologic information is used to support many Forest Service programs and specific activities including: land and resource management planning, timber sale road construction, mined land reclamation, watershed management and protection, recreation development, and other facilities construction. The geology program also provides information for evaluation, management, and protection of ground water resources and underground space on NFS lands.

Minerals Program and Support Table

<u>Title</u>	<u>1983</u>	<u>1984</u> (Dollars in thousands)	<u>1985</u>
National Forest System:			
Minerals Management	\$22,598	\$ 25,405	\$ 29,085
Minerals Support to Other Programs	-3,903	-3,465	-2,900
Subtotal, Minerals Program	<u>18,695</u>	<u>21,940</u>	<u>26,185</u>
Minerals Support from Other Programs:			
Land Management	150	820	170
Landline Location	320	490	520
Fire Protection	40	90	120
Road Maintenance	190	210	480
Timber Admin. & Management	80	340	70
Recreation	730	1,150	960
Wildlife & Fish	990	980	1,410
Range	160	240	200
Soil & Water	<u>1,050</u>	<u>1,630</u>	<u>1,400</u>
Subtotal, Mineral Support	<u>3,710</u>	<u>5,950</u>	<u>5,330</u>
Total, National Forest System	22,405	27,890	31,515
Road Construction	660	1,130	1,000

Total Minerals Management Program \$23,065 \$ 29,020 \$ 32,515

Outputs

Operating Plans 30,335 20,377 21,332

Leasable Minerals

Objectives: To protect the surface resources as appropriate during minerals exploration, development, production, and reclamation. Also to make available the energy and mineral resources within the National Forest System in the most efficient manner possible.

Program description: Leasable minerals include energy minerals (oil, gas, coal, oil shale, tar sands, and geothermal steam) on both acquired and public domain lands, and hardrock minerals (lead, silver, etc.) occurring on acquired lands. The leasable minerals program involves:

- Assuring that mineral exploration, development, production, and reclamation activities comply with applicable laws and regulations.

- Acting promptly on lease applications and reporting results to the Bureau of Land Management, and providing, through the BLM, stipulations for the protection of surface resources.

- Processing and approving operating plans.

- Protecting surface resources.

- Monitoring mining activities for compliance with operating plan standards.

- Administering special-use permits associated with leasable minerals.

Past energy crises have created a national awareness of the need for domestically produced leasable energy minerals. Rising prices of imported fuel, supply uncertainties, and the national objective to become energy self-sufficient have given greater impetus to meeting this need.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Leasable Minerals.....\$	11,769	13,774	+2,005
FTE	310	352	+42

The caseload mix is changing from predominantly lease applications to a greater proportion of higher cost operating plan proposals and operating plan administration. As a result of this evolution to higher-cost cases, the timely processing and administration will require an increase of \$2,005,000 in funding.

Operating plan administration involves considerable coordination among various staff groups, Federal agencies, and State agencies to (1) review proposed operating plans and develop mitigative measures for surface resource protection, and (2) assure that surface resource protection is accomplished relative to mineral activities. On National Grasslands, coal development activities increasingly involve surface mines which are generally more complex to administer than underground mines. The 4,400 unprocessed cases at the end of 1983 are primarily in the oil, gas, and geothermal portions of the leasable minerals program. The majority of unprocessed cases at the end of 1985 is expected to be the same.

The planned accomplishments for 1984 are 10,630 applications and operating plans processed and administered. An estimated 11,586 applications and operating plans will be processed and administered in 1985, an increase of 956 cases. The 1985 program will allow for resource coordination and appropriate protection of surface resources during mineral activities. The increase in unit costs is due to the greater proportion of complex cases, i.e., a greater proportion of cases in operating plan administration, compared to the processing of lease applications.

The funding includes a decrease of \$5,000 associated with improved efficiencies in administrative support activities and \$18,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+1,204
Travel	+164
Transportation of things.....	+61
Supplies, materials, and equipment	+123
Other contractual services	+453
Total	+2,005

Locatable Minerals

Objectives: To increase the availability of locatable minerals to enhance the industrial and economic strength of the United States. Encourage industry proposals for mineral development on public domain lands in the NFS. And, to develop reasonable and effective measures to protect surface resources and values.

Program description: Locatable or hardrock minerals, including gold, silver, lead, zinc, etc., are disposed of by the Federal Government under the 1872 Mining Law. A mining operator must file a claim and obtain necessary operating approvals to develop and mine locatable minerals on public domain lands. The locatable minerals program involves:

- Complying with mining laws.
- Protecting surface resources.
- Processing operating plans.
- Monitoring mining activities for compliance with operating plan standards.
- Administering special-use permits associated with locatable minerals.

In response to increasing dependence on foreign sources for a number of minerals of strategic importance, increasing prices, and other economic factors, the locatable minerals workload has steadily increased over the last several fiscal years and is expected to continue to rise during the next three years.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Locatable Minerals.....\$	9,176	9,557	+381
FTE	242	245	+3

An increase of \$381,000 will facilitate adequate and timely processing and administration of an estimated 6,249 cases in 1985, an increase of 279 cases over 1984. The 1985 program will provide for resource coordination and appropriate protection of surface resources. The increase in unit costs is attributable to a higher percentage of operating plan proposals in complex and difficult situations and corresponding operating plan administration.

The funding includes decreases of \$4,000 associated with improved efficiencies in administrative support activities and \$13,000 associated with a phased reduction of positions in grade GS/GM 11-15.

Object class information:

Salary and benefits	+ 86
Travel	+60
Transportation of things.....	+23
Supplies, materials, and equipment	+45
Other contractual services	+167
Total	+381

Common Variety Minerals

Objective: To determine the availability of common variety minerals and provide for their extraction and use consistent with sound land management practices.

Program description: Common variety minerals include gravel, sand, and other materials used in the construction of highways and other facilities. These minerals on NFS lands are either sold outright, granted to qualified users, or

used on Forest Service road systems and other facilities. The common variety minerals program involves:

- Complying with laws and regulations.
- Responding to lease applications and permits for development of common variety minerals.
- Developing operating plans.
- Protecting surface resources.
- Monitoring developments.
- Administering special-use permits associated with common variety minerals.

The common variety minerals workload has been increasing since fiscal year 1979.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Common Variety Minerals.....\$	2,945	3,966	+1,021
FTE	78	102	+24

The increase of \$1,021,000 will allow the Forest Service to be responsive to demands for common variety minerals for activities or projects on NFS lands and for uses off the NFS lands.

This program affects local and State governments and private operators who use sand, gravel, and other materials from NFS lands. Also, it provides materials for construction of roads and other facilities needed to implement the overall Forest Service program. The program includes the demands of other program areas (timber, recreation, and others) for common variety minerals. It also includes projected external needs.

Fiscal year 1984 planned accomplishments total 3,777 operating plans processed and administered. An estimated 3,497 cases will be processed in 1985, a decrease of 280 cases. Compared to 1984, there is an increase in the average unit costs. The increased unit costs are due primarily to both increased efforts to provide for township, county, and State needs and increased compliance checking to meet Mine Safety and Health requirements.

Object class information:

Salary and benefits	+688
Travel	+68
Transportation of things.....	+25
Supplies, materials, and equipment	+51
Other contractual services	+189
Total	+1,021

Geology Program

Objectives:

1. To ensure that geologic factors affecting the safety and cost-effectiveness of Forest Service activities are recognized and addressed.
2. To ensure that geologic and minerals resource information is gathered, evaluated, and provided to support efforts in land management planning, environmental protection, reclamation of mined land, and other agency or State cooperative management programs.

Program description: This program provides geologic information and support services for all Forest Service activities in land and resource management. This involves:

- Providing geologic support personnel in gathering and presenting information about geologic conditions and mineral resources to be used in resource evaluation and land management planning.
- Gathering, interpreting, and reporting geologic factors that effect the design, construction, and maintenance of Forest Service facilities. This includes work such as landslide investigations, foundation studies, and investigations for the location of construction materials.
- Gathering and interpreting geologic information needed for the development and protection of resources such as ground water, underground space, and minerals.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Geology.....\$	2,133	1,788	-345
FTE	56	46	-10

A decrease of \$345,000 reflects a reduced need for geologic support services for land management planning, project planning, and environmental protection of the land.

Object class information:

Salary and benefits	-287
Travel	-11
Transportation of things.....	-4
Supplies, materials, and equipment	-9
Other contractual services	-34
Total	-345

Real Estate Management

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Land Exchange and adjustment.....	\$	6,225	5,691	5,826	6,684	+858
	FTE	168	150	150	167	+17
Land classification, status and planning..	\$	740	716	731	1,352	+621
	FTE	18	17	17	31	+14
Special Uses.....	\$	7,282	6,575	6,727	7,474	+747
	FTE	191	170	170	184	+14
Geometronics.....	\$	5,688	5,542	5,671	5,753	+82
	FTE	150	143	143	143	--
Total	\$	19,935	18,524	18,955	21,263	+2,308
FTE 527		480	480	525	+45	

General: Provide for efficient real estate management of National Forest System (NFS) lands while protecting the resources and securing compliance with applicable air and water quality standards. Activities include land exchange and adjustment, land classification, status, landownership planning, special uses, and geometronics or base series mapping.

Land Exchange and Adjustment

Objective: To improve cost-effectiveness of resource management in the NFS by improving the landownership patterns so as to reduce management costs and facilitate development and management of the NFS and adjacent nonfederal lands.

Program description: Land exchange results in adjustments of ownership which benefit both the public and nonfederal landowners. All exchanges are made with willing owners. The exchanges result in more efficient landownership patterns that reduce administrative costs of both the Federal and nonfederal lands.

Cost savings occur in more efficient resource administration and road management; as well as reduced need for location, posting, and maintenance of property boundaries, and resolution of title claims. In 1983, 148 exchanges resulted in a reduction of 1,200 miles of National Forest System property boundary, which could mean a savings of \$6.5 million in landline location costs. This savings exceeds the \$5.9 million cost of the exchange program. In addition, savings result from rights-of-way not needed, reduced special-use administration, trespasses resolved, and other factors related to a more efficient land ownership pattern.

In the last 3 years, 516 exchanges were approved, in which 387,000 non-federal acres have been acquired in exchange for 232,000 acres of Federal land with a total value of \$325,000,000 on each side.

Approximately 2 million acres of National Forest System land have been tentatively identified for consideration for disposal through exchange to improve the National Forest System landownership pattern. Approximately 650,000 acres of this is included in current cases. The 1985 program will provide for the acquisition of

116,590 acres of non-federal land in exchange for about 70,000 acres of Federal land. This funding level will permit the completion of about 10 percent of the backlog of current cases. Cash equalization payments may be needed from benefiting funds.

In the western States, we have many land exchanges involving large acreages with States and local governments, railroads, timber and mining companies, and ranchers. The properties often involve alternate "checkerboard" landownership patterns resulting from land grants of 100 years ago. Exchanges in the eastern States generally involve individual landowners with small tracts. Exchanges provide a means of solving problems associated with fragmented ownership. Many exchanges result in assistance to local communities through the exchange of isolated tracts of non-Federal land to the United States in exchange for Federal land adjacent to expanding communities. The land exchange program provides a method of improving landownership patterns with a minimal impact on the Federal budget.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Land Exchange			
and Adjustment.....\$	5,826	6,684	+ 858
FTE	150	167	+17

An increase of \$858,000 will provide for acquisition of an additional 31,690 acres of non-Federal land by exchange. This is an increase of 37 percent in planned accomplishments attributed to an increase of 15 percent in funding. The increased funding level will reduce unit costs to about \$57 per non-Federal acre acquired compared to about \$67 at 1984 level. Emphasis will be on large acreage exchanges that significantly reduce administrative costs of resource management. One of the most significant cost savings is in reduction of miles of Federal property lines thereby lessening the risk of trespass. The savings in landline survey costs over the last 3 years exceeded the cost of the exchange program for this period.

Consolidation also reduces the need to purchase land to meet specific management needs. The improved landownership pattern will reduce the number of special-use permits authorizing non-Federal use of NFS land, thereby, reducing administrative costs. Land exchanges benefit the private sector and local governments by facilitating the development and expansion of communities and businesses on lands that are better suited for other than Federal uses.

Object class information:

Salary and benefits	+425
Travel	+24
Transportation of things.....	+8
Supplies, materials and equipment	+120
Other contractual services	+281
Total	+858

Land Classification, Status and Planning

Objective: Plan the adjustment of landownership for efficient resource management; maintain landownership title records to insure proper administration of lands subject to reservations, outstanding rights, other conditions of title, and the many laws that direct or effect land management; provide an automated retrieval system of land title information; and resolve title disputes.

Program description: Within the National Forest System boundaries, there are approximately 230 million acres of land. This area consists of 39 million acres of non-Forest Service land, 28 million acres of acquired land, and 163 million acres that were reserved from the public domain. These lands, assembled over many years, consist of thousands of individual tracts, each having an individual ownership title file. This record of ownership information must be actively maintained to guide resource management as to title restrictions, reservations, other conditions of title, and legislative direction contained in over 500 laws that effect management.

Accurate, current ownership records must be readily available for resource management. They are essential for such situations as, the conveyance of approximately 2 million acres of National Forest System land in Alaska to other public and private ownerships, involving hundreds of individual tracts. Also, in the 1980's the ownership of millions of acres of minerals rights reserved from National Forest System lands acquired in the 1930's will pass to the United States.

The 39 million acres of non-Federal ownerships within the National Forest System, and adjoining boundaries result in situations where non-Federal and Federal ownerships overlap. Currently, there are about 50,000 title claim cases. In addition, ownership of millions of acres is claimed by various Indian Tribes. Resolution of these title claims is funded through this activity to protect the capital investment contained in National Forest System land. The intermingled ownerships create scattered land units which, in some instances, are inefficient to manage. Planning for landownership adjustments in such areas results in more efficient management.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Land Classification,			
Status and Planning...\$	731	1,352	+ 621
FTE	17	31	+14

The increase of \$621,000 will provide for completion of 541,295 acres of mineral withdrawal reviews and the resolution of 100 encroachment and title claim cases using the Small Tracts Act (P.L. 97-465) authority.

Object class information:

Salary and benefits	+350
Travel	+15
Transportation of things	+5
Supplies, materials and equipment	+75
Other contractual services	+176
 Total	 +621

Special Uses (non-recreational)

Objective: To authorize the use of National Forest System lands by Federal, State, and local agencies, as well as private industry and individuals. Authorizations for use are included in 13 specific acts of Congress listed in 36 CFR 251.53.

Program description: The workload for the program is externally generated, without Forest Service control over the number of applications received for use of National Forest System lands. Processing of applications involves preparation of environmental reports, field examination of proposed sites, drafting of appropriate permit terms and conditions, and determination of fees to be charged. Utility and road rights-of-way are examples of uses for which easements are issued.

Once a permit or easement is issued, inspection and monitoring are required to assure its terms are met. Periodic evaluations are required to assure fees are appropriate. Over \$4.2 million was collected in land use fees in 1983. Approximately 48,000 non-recreation use permits are in force, of which over 10,000 are for utility rights-of-way. In 1985, 4,250 applications are expected, most of which will be energy related. Administration and processing of special-use applications for mineral activities are funded under the minerals program in 1985.

A major and increasing workload has been the review of hydroelectric development project proposed for licensing by the Federal Energy Regulatory Commission (Federal Power Act, June 10, 1920). The proposals (2,000 in the last 3 years) require extensive analysis and impact review and must be done in a timely manner.

Review of hydroelectric development proposals and administration of licensed projects will be funded from benefiting funds. However, special-use permits and easements must be issued to provide for use of National Forest System land for site investigation and ancillary rights-of-way.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Special Uses.....\$	6,727	7,474	+ 747
FTE	170	184	+14

The increase of \$747,000 will provide for fee reviews (scheduled every 5 years) on approximately 2,300 permits. Fees established in 1980 and earlier years will be continued on approximately 13,000 permits. Emphasis will be placed on energy related applications and most cost-effective fee reviews.

Funding will provide for administration of 27,000 permits. Reviews of compliance with Title VI of the Civil Rights Act of 1964 (PL 88-352) and Secretary of Agriculture regulations (7 CFR Part 251) issued pursuant to this Act will be conducted on 2,450 permits. The balance of permits will be those that require a minimal degree of administration. Some inspections will be deferred in cases where little or no environmental or public health and safety impact is expected to occur.

The funding level includes a decrease of \$2,000 associated with improved efficiencies in administrative support activities and \$8,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+350
Travel	+22
Transportation of things.....	+7
Supplies, materials and equipment	+110
Other contractual services	+258
Total	+747

Geometronics

Objective: To provide essential maps and related products.

Program description: The geometronics program produces base series maps to support resource management needs. Production is centralized at the Geometronics Service Center in Salt Lake City, Utah. All Regional field units provide support in the area of aerial photography, field edit and publication. The program also includes development work to increase efficiencies in the mapping process.

The Forest Service is a cooperator, with other Federal Agencies, in various mapping and charting activities. The Federal Interagency Coordinating Committee on Digital Cartography (FICCDC), established by OMB's direction, is charged with the coordination of digital cartographic activities within Federal Agencies to avoid duplication and waste. The objective is to develop and adopt, for use by all Federal Agencies, common standards of content, format, and accuracy for digital cartographic base data to increase its interchangeability and enhance its potential for future use.

The Forest Service's mapping program exists to support the management of National Forest System lands. As such, the Agency's program is functional in nature; and, is directed at displaying Agency resources, facilities, and management data on existing standard cartographic bases. Therefore, the program is dependent on a constant interplay between resource specialists (foresters, biologists, earth scientists, engineers, etc.) and the cartographic staffs. The base series mapping program has been consolidated at our Geometronics Service Center in Salt Lake City, Utah, to produce thematic layers which are required by all disciplines (i.e., transportation systems, land status, administrative sites, etc.). Functional specialty resource thematic maps are produced in Regional Offices to be responsive to the needs of the local staff for Regional Forest management programs. These local activities accounted for approximately 70 percent of our mapping expenditures in FY 1983.

Specific cooperative efforts the agency is presently involved in are:

1. Base Series Mapping Program--The Forest Service (FS) uses the Geological Survey (GS) 7½-minute quadrangle as its primary base map for displaying Forest Service thematic information. An Interagency Agreement exists between the Geological Survey and Forest Service to cost-share revision of 7½-minute quads to provide a more current map base on which to display our thematic information. FY 1984 cost-share is approximately \$200,000 for GS to revise 200 quadrangles.

2. National High Altitude Photography (NHAP) Program--The Forest Service has been an active annual participant in this program since its inception in 1979. Our annual contributions for this cyclic program has averaged about \$250,000. This photography is a valuable tool for photointerpretation of resource information and for generation of orthophotos on which to display thematic information.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Geometronics	\$ 5,671	5,753	+82
FTE	143	143	---

An increase of \$82,000 will enable the Forest Service to increase by 85, the number of maps produced. A total of 1,345 primary base series maps and 35 secondary base series maps will be produced. These maps are most critical to the management of the National Forest System. Those maps, necessary for the management of timber and minerals, will be of highest priority.

Primary Base Map - The master 1:24,000 scale, 7½ minute-quadrangle sheet which is used as the basis of all Forest Service maps.

Secondary Base Maps - Maps of a complete forest or unit, usually at a scale of ½ inch equal 1 mile. The maps are constructed from the Primary Base Maps and contain much of the same information.

The funding level includes a decrease of \$4,000 associated with improved efficiencies in administrative support activities and \$16,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-16
Travel	+4
Transportation of things	+2
Supplies, materials and equipment	+23
Other contractual services	+69
 Total	 +82

Land Line Location

	1983 Actual	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Land line location \$	25,034	29,193	29,780	28,595	-1,185
Miles	6,085	6,635	6,635	7,217	+582
FTE	581	661	661	635	-26

Objective: Locate and mark property lines between National Forest System land and other property prior to instituting resource management activities and in accordance with the Resource Planning Act requirements.

Program description: The proper location of Forest Service property lines is a prerequisite to construction and resource management activities adjacent to property owned by others. The landline location program identifies legal property boundaries between National Forest System lands and other ownerships to permit efficient resource management.

Where property boundaries are not identified, resource management activities, such as timber sales, cannot proceed because of the hazard of cutting non-Forest Service timber. Trespass by private landowners onto National Forest System lands occurs at a rate in excess of 2 cases per mile where property lines have not been marked.

Resource management activities carried out up to National Forest System property lines, without risk of trespass or without "set-backs" from the boundary, increases income, avoids damage claims, and reduces administrative costs. A Department of Agriculture Audit (#60315-1-SF) completed in July 1977 estimated a \$25 million yearly loss in timber receipts and a cost of over \$112 million to resolve trespass or title claims cases resulting from a lack of properly surveyed property lines.

The program has three primary activities: (1) the initial location and marking of boundary lines, (2) the reestablishment of boundaries which have been lost in the absence of landline maintenance, and (3) periodic landline maintenance.

The Department of the Interior, Bureau of Land Management (BLM) has the leadership role of surveying public lands. Lands surveyed by the BLM within the National Forest are largely financed by the Forest Service. Funds are transferred to the BLM under an interagency agreement for their surveys have averaged over \$1 million for the last several years.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Land Line Location \$	29,780	28,595	-1,185
FTE	661	635	-26

A decrease of \$1,185,000 will provide for the necessary landlines to support the 11.2 billion board feet timbers sales program and the other benefiting resource programs . The landline needs are less in FY 1985 because the timber sales programs for FY 1985 is 500 million board feet less than the FY 1984 program.

The change will result in the accomplishment of 7,217 miles of property boundary located and/or reestablished. Of this total, 5,686 miles of the landline location program support timbers program. The remaining 1,531 miles support the minerals, recreation, and other benefiting programs.

The planned accomplishments reflect productivity improvements implemented following a program analysis completed in 1982 that included implementation of new technology and more emphasis on cost-sharing with adjoining landowners.

The funding level for landline location activities include a decrease of \$9,000 associated with improved efficiencies in administrative support activities and \$31,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-650
Travel	-29
Transportation of things.....	-10
Supplies, materials and equipment	-148
Other contractual services	-348
Total	-1,185

Maintenance of Facilities

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
		(Dollars	in thousands)		
Maintenance of facilities \$	21,710	13,982	14,177	16,091	+1,914
FTE	318	227	227	260	+33

Objective: To provide for maintenance and minor improvement of facilities used for fire and general administrative purposes. These facilities support National Forest System activities. They include administrative sites, offices, service and storage buildings, and associated water, sanitation and electrical systems. This item also includes maintenance of airports, heliports, fire lookouts, fire management facilities.

Program description: The Forest Service uses approximately 11,200 permanent buildings with 12.8 million square feet, primarily at Ranger District and work center locations in managing NFS lands. Approximately 46 percent of these buildings were constructed prior to 1940, 37 percent between 1945 and 1965 and the remaining 17 percent since 1965. Most were designed and constructed with a structural and functional life expectancy of 30-35 years. More expensive maintenance is needed as facilities exceed this age. Maintenance costs less than \$1,000 will be funded from other benefiting funds or functions.

This level includes a decrease of \$8,000 associated with improved efficiencies in administrative support activities and \$15,000 associated with a phased reduction of positions in the grades GS/GM 11-15.

Increase for 1985:

	1985 Base	1985 Estimate	Increase
Maintenance of Facilities..... \$	14,177	16,091	+1,914
FTE	227	260	+33

The increase will permit accelerated abatement of unsafe and hazardous conditions for employees and public users of Forest Service facilities.

Object class information:

Salary and benefits	+825
Transportation of things	+19
Supplies and materials	+301
Travel	+59
Other contractual Services	+710
Total	+1,914

Forest Fire Protection

	1983 Actual	1984 Appropriation Enacted to Date (Dollars	1985 Base in thousands)	1985 Estimate	Inc.(+) or Dec.(-) from Base
Prevention	\$ 24,687	25,502	26,197	24,952	-1,245
Detection	\$ 8,180	9,607	9,869	7,719	-2,150
Attack	\$ 70,995	78,792	80,941	81,119	+178
Aviation	\$ 27,971	29,140	29,934	28,489	-1,445
Fuels	\$ 22,056	11,897	12,222	17,596	+5,374
Total	\$ 153,889	154,938	159,163	159,875	+712
FTE	4,600	4,656	4,656	4,669	+13
Fuels Treatment (acres)	334,595	116,400	116,400	126,000	+9,600

General: The Forest Fire Protection program provides protection for life, property, and all natural resources on the 191 million acres of National Forest System lands. Protection is furnished to an additional 20 million acres of adjacent State and private lands through fee or off-set programs. The Forest Fire Protection program can be divided into presuppression and fuels management*. Presuppression includes prevention, detection, attack (initial action) and fire aviation. The cost of fire protection on National Forest System lands is the sum of forest fire protection, fighting forest fires and the net resource value changes as a result of wildfires. FFF is discussed in the next section of the notes.

Forest Fire Protection includes:

- A balanced fire management program that is responsive and cost-effective, commensurate with the threat to life and property, public safety, resource values and management objectives.

- Compliance with air quality regulations in fuels management projects.

- The reduction of fuels to reduce wildfire intensity and resistance to control.

- The collection and analysis of data on fire protection and fire use for formulation and evaluation of alternative land management plans and policies.

- The technology to use prescribed fire as a management tool to protect valuable timber and watersheds by reducing the volume and flammability of hazardous fuels on the forest floor.

- The technology for use of prescribed fire to prepare timber sites for planting, to increase water yields, to improve wildlife habitat, and to increase the amount of available forage for red meat production. The following photo, Figure 1, depicts a prescribed fire project.



Fig. 1 Prescribed fire consuming fuels on Deschutes National Forest.

Statistical Comparison of the Number of Wildfires and Burned Area in 1983 with the Period 1978-1982

Number of Fires

<u>Calendar Year</u>	<u>Lightning Fires</u>	<u>Person Caused Fires</u>	<u>Total</u>
1978	5,536	6,632	12,168
1979	5,111	6,247	11,358
1980	4,623	6,615	11,238
1981	5,976	7,006	12,982
1982	3,788	4,190	7,978
5-Yr Avg.	5,007	6,138	11,145
1983	3,170	3,483	6,653

Acres Burned

<u>Calendar Year</u>	<u>NF Acres</u>	<u>Other Acres</u>	<u>Total Acres</u>
1978	86,122	19,616	105,738
1979	327,712	43,094	370,806
1980	250,623	57,777	308,400
1981	164,425	45,206	209,631
1982	32,735	11,887	44,622
5-Yr Avg.	172,323	35,516	207,839
1983	42,495	8,800	51,295

The statistics bear out the very light fire seasons in 1982 and 1983 resulting from exceptional weather patterns in the west. As a result, the expenditures for fighting forest fires (FFF) were commensurately low.

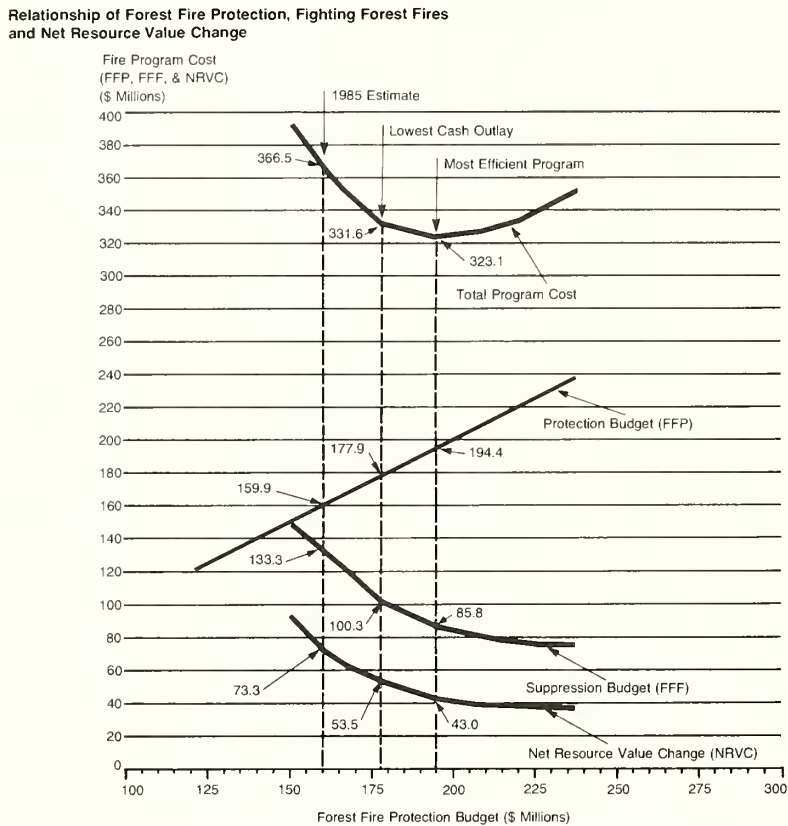
A national fire management analysis system is used to identify the most efficient protection program. The analysis is based on historical data and economic efficiency. It considers statistically expected emergency fire suppression costs and expected net changes in resource value at alternative protection levels. The most efficient program is specified by the lowest sum of fire protection cost plus fire suppression cost plus net resource value change.

The following graph, Figure 2, illustrates the relationship among Forest Fire Protection (FFP), Fighting Forest Fires (FFF), and net resource value change (NRVC). The top curve is cost plus net value change, and its lowest point identifies the most efficient program budget level. The lowest cash outlay point is that point where the sum of FFP plus FFF is minimized. The 1985 estimate was selected to hold down Federal costs within an acceptable level of risk.

Expenditures for FFF and resource losses relative to the FFP budget will not be as great as predicted on these curves if the actual fire severity and occurrence in 1985 is below the statistically expected norm as it was in 1982 and 1983. Expenditures for FFF and resource losses relative to the FFP budget will be greater than predicted on these curves if the actual fire severity and occurrence in 1985 is above the statistically expected norm as it was in 1977 and 1979.

Fig. 2

Relationship of Forest Fire Protection, Fighting Forest Fires, and Net Resource Value Changes



Fire Prevention

Objective: To prevent person-caused wildfires when economically feasible.

Program description: Wildfire prevention is an activity to reduce the number and severity of wildfires caused by people or that result from their activities. It involves: determination of the fire cause, fire prevention analysis, reduction of fire risk and hazards, public education, personal contacts, and determining need and implementing Forest closures and regulated use.

In recent years incendiary fires, campfires and smoking fires are the most common national causes of people-caused wildfire. The causes that create the greatest national economic consequences are incendiary, campfires and debris burning. Specific prevention activities vary by Region depending on the local problem. Figure 3 shows the percentage of fires and the percentage of area burned by statistical cause. Figure 4 shows which fire cause is most significant by area of the Nation.

5 Year Average (1978-1982)

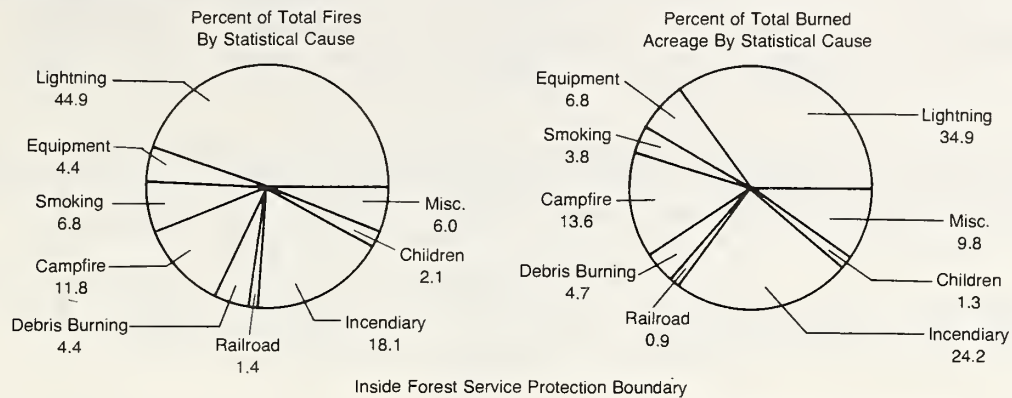


Fig. 3 Wildfire Causes in the National Forest System

Wildfire Causes Major Fire Problems in the National Forest System

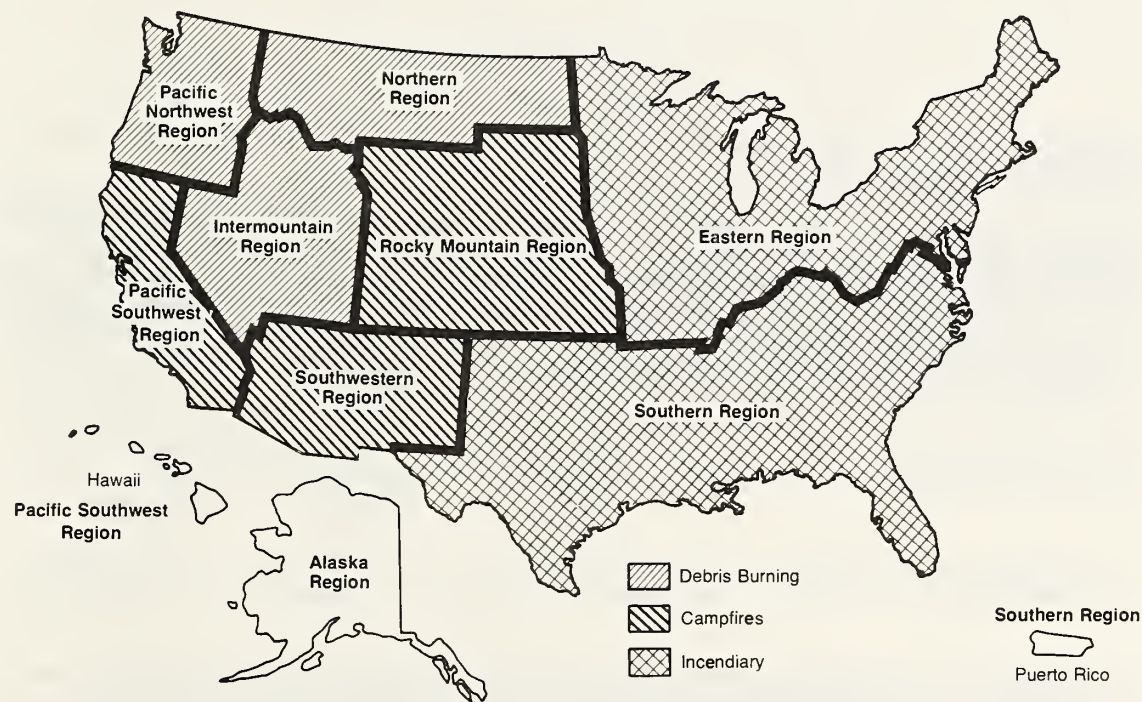


Fig. 4

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Prevention.....\$	26,197	24,952	-1,245
FTE	766	741	-25

A decrease of \$1,245,000 will permit additional emphasis on fuel treatment and fire attack while the holding of Federal expenditures to a minimum. Where possible, initial attack personnel have assumed responsibility for some prevention activities to maintain prevention capability with a more cost efficient organization.

A decrease of \$50,000 associated with improved efficiencies in administrative support activities and \$175,000 associated with a phased reduction of positions in grades GS/GM 11-15 is included in the overall decrease.

Object class information:

Salary and benefits	-690
Travel	-40
Transportation of things	-15
Supplies, materials and equipment	-130
Other contractual services	-370
Total	-1,245

Fire Detection

Objective: To achieve prompt detection of wildfires facilitating effective and efficient fire suppression.

Program description: The detection program encompasses actions to discover the presence and location of wildfires. This activity includes operation of fixed observation towers, observation aircraft and motor vehicles and electronic systems such as automatic lightening detection devices, infra-red scanners and dispatcher operated telephone switchboards. Figure 5 displays a historical average of the methods by which wildfires have been reported or discovered.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Detection.....\$	9,869	7,719	-2,150
FTE	289	246	-43

A decrease of \$2,150,000 will permit additional emphasis on fuel treatment and fire attack while holding Federal expenditures to a minimum. Detection needs have decreased relative to other protection activities. Increased public detection of fires and electronic systems supplemented with temporary detection stations have reduced the need for traditional fixed detection stations.

Object class information:

Salary and benefits	-892
Travel	-70
Transportation of things	-26
Supplies, materials and equipment	-304
Other contractual services	-858
Total	-2,150

Means of Fire Detection

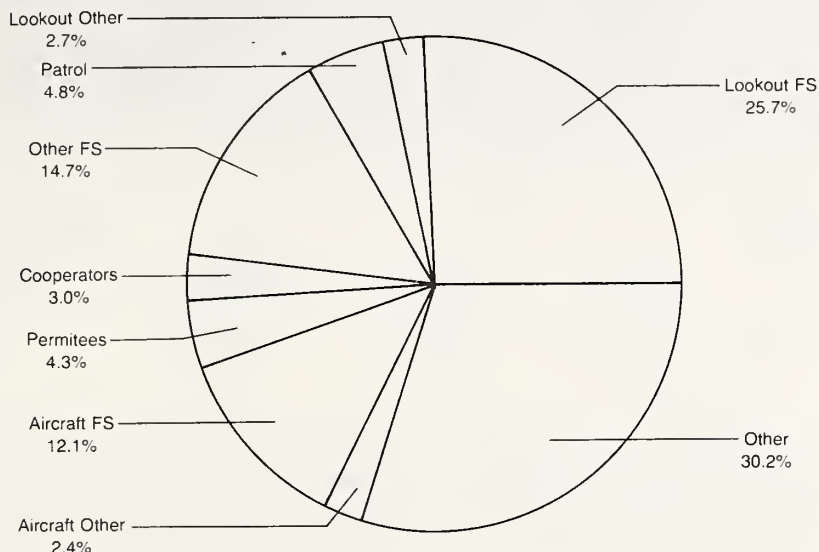


Fig. 5

Fire Attack

Objective: Take initial action to suppress wildfires in a cost-effective manner, minimizing resource damage.

Program description: This program provides the Forest Service with the capability to take prompt, effective initial action response toward the suppression action on wildfires within the National Forest boundaries to meet land and resource management objectives. It also provides for recruiting, organizing, training, and equipping supplemental firefighters for both initial action and reinforcement. Supplemental firefighters are obtained from a variety of sources including non-fire financed Forest Service personnel, enrollees of human resource programs, industry, cooperating Federal, State, and local agencies of government and local individuals.

The Forest Service also renders fire suppression assistance to other Federal, State, and local agencies of government through mutual aid and reimbursement agreements.

1. **Fire Trucks:** The acquisition operation and maintenance of a fleet of fire trucks (engines) is funded both as a project expense and through a revolving working capital fund. Approximately 1,200 fire trucks, with a crew of 2 to 5 persons, are in the fleet. The number of engines in service at any one time depends on the budget and fire weather severity.

2. **Interregional Fire Crews:** Another major component of the Fire Attack program is 48 highly trained interregional, twenty-person crews, deployed as needed throughout the United States for wildland fire suppression. These crews are very effective for initial and reinforcement suppression action. They provide a ready resource for accomplishment of planned fire management presuppression activities and other National Forest program priority tasks when not fighting fire.

3. NIIMS: Technologies developed in the southern California FIREScope Forestry Assistance program are now being implemented Service-wide via the National Interagency Incident Management System (NIIMS) which includes major cooperators (other Federal Agencies, States, cities and counties). This single, united approach to the fire management of major wildfires and other emergency incidents, significantly improves the effectiveness of the Forest Service, as well as the effectiveness of our cooperators.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Fire Attack.....\$	80,941	81,119	+178
FTE	2,367	2,371	+4

An increase of \$178,000 will provide for improvements in the attack organization and will permit additional emphasis on fuel treatment.

Object class information:

Salary and benefits	+84
Travel	+5
Transportation of things	+2
Supplies, materials and equipment	+23
Other contractual services	+64
Total	+178

Aviation

Objective: To provide aviation management services and aircraft when needed to achieve Forest Service fire protection objectives.

Program description: This program provides fire protection aircraft, aircrews, support personnel and equipment for transportation of personnel and equipment, reconnaissance, survey and aerial application of fire retardants. It also includes the support activities of training, inspection, and aircraft administration needed to achieve Forest Service program objectives.

Aircraft, including both fixed-wing airplanes and helicopters, are utilized in accomplishing these varied missions. The following table illustrates the missions and more significant uses:

<u>Mission</u>	<u>Number Aircraft Use</u>	<u>FY 1982 Hours Flown (most recent data)</u>		
		<u>Fixed-Wing</u>	<u>Helicopter</u>	<u>Total</u>
Fire Detection/Recon	151	11,296	1,003	12,299
Fire retardant delivery	109	2,058	778	2,836
Other fire suppression	118	1,275	1,749	3,074
Transportation of personnel & equipment	247	2,564	2,632	5,196
Total	625	17,193	6,162	23,405

Approximately 85 percent of total hours are provided by commercial operators under contract or other agreement. The remaining hours flown were by aircraft owned or leased by the Forest Service or cooperating agencies.

At the request of the airtanker industry the Forest Service is soliciting proposals for solicited airtanker contracts for the 1984-1986 contracting period. Forty two airtankers will be contracted for in FY 1984, forty one in FY 1985, and forty in FY 1986. Thirty four airtankers are required according to an airtanker needs assessment completed by the Forest Service Regions in the fall of 1983. The higher number of airtankers planned for represents a careful approach toward reducing the number of airtankers in use to the projected number needed. The rate of reduction provides a margin of safety on the imperfectibility of the analysis, as well as recognition of the ability of industry to adjust from previous levels.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Fire Aviation.....\$	29,934	28,489	-1,445
	876	847	-29

A decrease of \$1,445,000 will permit additional emphasis on fuel treatment and fire attack. Reductions will be accomplished primarily by adjustments in helicopter contracts to implement a more cost efficient combination of sizes helicopter, and base locations, and length of seasons.

Object class information:

Salary and benefits	-601
Travel	-47
Transportation of things	-17
Supplies, materials and equipment	-204
Other contractual services	-576
Total	-1,445

Fuels Management

Objective: To reduce the volume of wildland fuels, where cost-effective, to minimize the potential for large, destructive wildfires and to support land and resource management objectives.

Program description: The fuels management activity includes the inventory of fuel hazards, analysis of alternatives for treating these hazards and actual treatment. Treatment includes yarding and stockpiling of woody materials for biomass utilization, manipulation via hand or mechanical means to a less threatening and obstructing condition and reduction by removal or through use of prescribed fire. Improved protection of natural resources is the major benefit. Other benefits include increased utilization of woody material for fiber and heat, improved public access for additional recreation opportunity, increased grazing opportunities, improved wildlife habitat and increased water yields.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Fuels Management.....\$	12,222	17,596	+5,374
FTE	358	464	+106

The proposed program will permit renewed emphasis on fuel treatment while holding Federal expenditures to a minimum. Forest plans nearing completion call for additional fuel treatment along with increases in assistance to other resource managers on the techniques and use of prescribed fire for vegetative management. The return to FY 1982 and FY 1983 program levels is necessary because the reduction in FY 1984 was too severe to be continued without jeopardizing other Forest Service programs. Although the planned program includes projects with higher unit costs, which had to be postponed in the reduced program, the projects are cost effective and offer the best choice of fire protection at lower costs in the long-run.

Object class information:

Salary	+2,198
Travel	+175
Transportation of things.....	+66
Supplies, materials and equipment	+767
Other contractual services	+2,168
Total	+5,374

Fighting Forest Fires

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars	1985 Base in thousands)	1985 Estimate	Inc.(+) or Dec.(-) from Base
Fighting Forest Fires	\$	1,000	1,000	1,000	1,000	--
	FTE	(169)	(169)	(169)	(169)	--

General: This program provides an initial amount of funds for fighting wildfires on, or threatening, National Forest System lands and the rehabilitation of burned over areas. These funds will only be used to the extent necessary under emergency conditions. Fighting Forest Fire (FFF) expenditures are reflective of both fire occurrence (statistics in previous section on FFP) and fire severity. FFF expenditures for the last five years have been:

Fighting Forest Forest Expenditures
(Dollars in millions)

<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
\$77.8	\$64.7	\$99.0	\$27.3	\$34.3

Program description: This program provides most of the direct expenses for fighting wildfires. Fighting Forest Fires (FFF) and Forest Fire Protection (FFP) are directly related. The cost of fire protection on National Forest System lands is the sum of forest fire protection, fighting forest fires and the net resource value changes as a result of wildfires. The relationship between FFP and FFF is displayed in the previous section of FFP. Costs due to actual suppression activities will require separate supplemental funding and/or reprogramming, as in the past.

No change for 1985.

Cooperative Law Enforcement

		<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
		(Dollars in thousands)				
Cooperative Law Enforcement	\$	5,174	5,171	5,174	5,307	+133
Number of Agreements		376	350	350	364	+14
FTE		12	12	12	12	---

Objective: To cooperate in law enforcement with States and their subdivisions to remedy situations involving vandalism, destruction and theft of personal property, and assaults against visitors and users on National Forest System lands.

Program description: The cooperative law enforcement program provides reimbursements to State and local law enforcement agencies for extraordinary expenses associated with protecting the public and their property on the National Forests. In many cases, the number of visitors to the National Forest equals or greatly exceeds the resident population of the counties. Since this visitor use is seasonal and often occurs in geographically remote areas, additional costs are associated with protecting the visiting public. An example is the large number of illegal cannabis plantations (the source of marijuana) that have been detected on National Forests in recent years. They are often protected by booby traps, guard dogs and armed guards. The accidental entry of visitors into these areas poses a serious threat to visitors.

Payments in lieu of taxes (PILT) are made by the Department of Interior to these counties. Those that are most remote and least densely populated, often do not receive sufficient PILT funds to carry out an effective law enforcement program. Payments from the National Forest Fund (25 percent Fund) are made to most of these counties but are available only for roads and schools, not for law enforcement purposes.

During FY 1983, 362 agreements were in effect. Approximately 750 jurisdictions were eligible for assistance. In Fiscal Years 1984 and 1985, 364 agreements are being planned annually.

The funding level includes decreases of \$5,000 from efficiencies in administrative support activities and \$2,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Increase for 1985:

		<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Cooperative Law Enforcement	\$	5,174	5,307	+133
FTE		12	12	---

The increase of \$133,000 will allow the continuance of the FY 1984 program level of work. This work, conducted by State and local law enforcement agencies, will occur primarily in areas where the potential for crime represents the greatest risk to National Forest visitors.

Object class information:

Salary and benefits	-2
Travel	-3
Transportation of things	-2
Supplies, materials, and equipment	+8
Other contractual services	+132
Total	+133

Forest Road Maintenance

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
Forest Road					
Maintenance \$	73,666	64,164	65,270	66,267	+997
Miles	321,624	319,000	319,000	331,674	+12,674
FTE	1403	1261	1261	1280	+19

Objective: The objectives of the Forest road system operation and maintenance programs are to: perpetuate the road to serve its intended management purposes; protect the investment, environment, and adjacent resources; provide for user safety; meet applicable air and water quality standards; and provide for user economy and convenience. This work is in response to and in support of:

1. The National Forest Roads and Trails Systems Act of October 13, 1964, which states that the maintenance of an adequate system of roads is essential to meet the increasing demands for timber, recreation, and other uses. Adequate road maintenance has the effect of increasing the value of timber and other resources and is essential to enabling the Secretary of Agriculture to provide intensive use, protection, development, and management under principle of multiple use and sustained yield of products and services.

2. The Highway Safety Act of 1966, which sets forth criteria for the development of a safety program to reduce death and injuries on the roads of this Nation.

3. The National Forest Management Act of 1976 which contains requirements on how National Forest System lands are managed.

4. Resource program objectives (outputs) identified in the Annual National Forest System Program of Work.

Program description: Road system operation is managing traffic and maintaining Forest roads. Traffic management is the continuous process of analyzing, controlling, and regulating road use. Maintenance management is the continuous process of planning, organizing, directing, performing, controlling, and evaluating road maintenance activities.

The Forest development road system exceeds 330,000 miles of various standards and types of roads. Approximately 90 percent of this mileage is single lane and 75 percent of this mileage is unsurfaced (no gravel or pavement). The capital investment realized in this system over a period of 60 years, is approximately \$3 billion. The replacement cost of this road system in today's dollars is estimated to exceed \$17 billion.

Specific work activities funded by the Road System Operation program include:

1. Traffic Management.

a. Traffic studies - collecting and analyzing statistically sound data on the use and physical characteristics of the road system.

b. Jurisdiction - determining and resolving road jurisdiction and responsibility with States, Counties, other Federal Agencies, and private landowners.

c. Cost Share Program - managing right-of-way, construction, and use agreements where it is beneficial for private landowners and the Forest Service to jointly develop and maintain a common road system thus reducing total costs to both parties.

d. Regulations and controls - determining the need for, developing and implementing traffic control (vehicle size, use restriction, road closures, permits, cooperative agreements, commercial use and control devices) where necessary to prevent damage to the road or resources, to maintain use within capacity limits and to insure the commensurate maintenance responsibilities of commercial users. Traffic control devices include regulatory signs, warning signs, guide signs, pavement marking, and signing for road construction and maintenance activities.

e. Enforcement - cooperating with local authorities in the enforcement of Federal laws, rules, and regulations on the Forest development road system. This includes road closures, load limits, etc.

2. Maintenance Management.

a. Maintenance planning - inspecting roads and bridges to determine maintenance needs and developing a plan to finance and accomplish work.

b. Maintenance work - performing on-the-ground work such as roadside brushing, surface grading, culvert cleaning, replacing worn out surfacing, repairing bridges and other structures and replacing damaged signs, needed to maintain safe traffic flow at a level commensurate with the intended use and to prevent resource damage.

The Forest Development Road System supports all resource programs conducted on the National Forest System. The road system must be operated and maintained in an efficient and economic manner in order to achieve resource program objectives.

The Road System Operation Program is financed by (1) Federal appropriations (approximately 48 percent), (2) requirements on purchasers of Government timber (approximately 48 percent), and (3) the requirements on other commercial users (mining, private timber haul, etc. (approximately 4 percent).

Timber purchasers and other commercial users obligations are limited to that necessary to maintain roads in a satisfactory condition commensurate with their particular requirements. The Forest Service is responsible for all additional maintenance attributed to administrative and all noncommercial use.

In addition, a significant portion of the road maintenance job does not result from road use. This work, consisting of such items as culvert cleaning, roadside brush control, maintenance of traffic control devices, and bridge painting must be performed. During periods of commercial haul, these costs are shared between the Forest Service and the commercial hauler. During periods of reduced timber harvest, Forest Service obligations for these costs increases.

Reduced timber harvest levels and increased public uses have resulted in road maintenance work being deferred. The short term impact of these actions may be tolerable, however, road reconstruction obligations may increase in the long term.

Fiscal Year 1985 road maintenance accomplishment is summarized as follows:

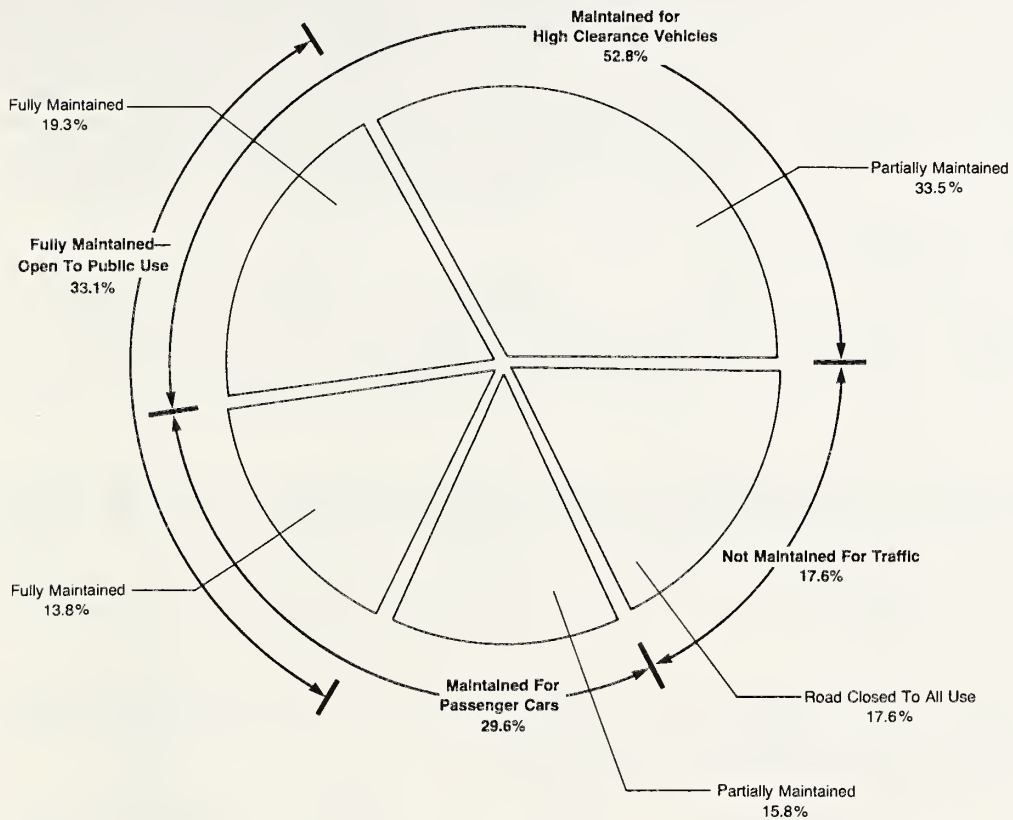
FY 1985

Total Road System Mileage - 331,674

	<u>Total Miles each category</u>	<u>Fully Maintained* Miles</u>	<u>Partially Maintained (some needed work not accomplished) Miles</u>	<u>Not Maintained</u>
Closed to all use.	58,274			58,274
Maintained only for use by high clearance vehicles (jeeps, pick-ups, etc.).	175,153	64,168	110,985	
Maintained for use by standard passenger car.	98,247	45,746	52,501	
Total	<u>331,674</u>	<u>109,914</u>	<u>163,486</u>	<u>58,274</u>

*Full maintenance includes all work necessary to perpetuate the road to serve its intended management purposes; protect the investment, environment, and adjacent resources; provide for user safety; meet applicable air and water quality standards; and provide for user economy, access, and convenience.

A graphic display of this data is shown below:



Actual on-the-ground work performance was accomplished by Forest Service crews, by formal maintenance contracts, by cost-share cooperators, and by Forest users (timber purchaser, oil-gas permittees, etc.).

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Road Maintenance.....\$	65,270	66,267	+997
FTE	1,261	1,280	+19

A road operation budget at this level will help achieve the long term goal of providing the economically sound, permanent transportation system necessary for the optimum utility of the Forest resources. This recognizes the need to protect natural resources, the environment, the capital investment in the road system, provide for user safety, minimize future reconstruction costs, and reduce user-vehicle operating costs.

The proposed increase of \$997,000 is 1 percent above the 1985 base. Most of this amount will be used to maintain road mileage (new construction) added to the system during FY 1984. Maintenance activities such as roadside mowing, brush control, surface blading, surface replacement, directional signing, culvert replacement, and bridge painting will be accomplished.

A decrease of \$19,000 associated with improved efficiencies in administrative support activities and \$73,000 associated with a phased reduction of positions in grades GS/GM 11-15 is included in the funding.

Object class information:

Salary and benefits	+438
Travel	+ 14
Transportation of things.....	+ 13
Supplies, materials and equipment	+ 90
Land and structures.....	+ 30
Other contractual services	+412
Total	+997

Forest Trail Maintenance

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u> (Dollars	<u>1985 Base</u> in thousands)	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Forest trail maintenance	\$ 13,988	9,162	9,408	8,377	-1,031
Miles (thousands).....	66.0	60.4	60.4	50.7	-9.7
FTE	400	272	272	243	-29

Objective: To manage, operate, maintain, and preserve a trail system for access to National Forest System lands for recreational use by the public and for fire control, grazing, wildlife habitat management, and overall administration by Forest Service officers.

Program description: The National Forest System contains more than 98,500 miles of trails providing essential public access to the Forests for hiking, vehicle and horseback riding, nature appreciation, resource management, fire control, and law enforcement. National Forest System trails are key to accomplishing the Forest Service objective to increase the supply of cost-efficient recreational opportunities. Trails offer public access with a minimal investment. Since 1970, trail use has more than doubled. In 1983, there were 12.9 million recreation visitor-days (RVD's) spent on National Forest System trails. A family of four on a 3-hour hike is one recreation visitor day as is one person fishing for 12-hours.

Trail maintenance includes repairing trail signs and trail bridges as well as working on the trail paths themselves.

Maintenance provides for use of the trail, protects prior investments in trail construction and minimizes soil erosion and sedimentation. Sediment is damaging to fish habitat and municipal water sources. Levels of trail maintenance range from custodial (level 1) to high standard (level 5). Custodial maintenance minimizes resource damage from erosion but does not protect the investment. Increased trail maintenance through level 5 provides for increased use, safety, and facility protection.

Trail maintenance is a popular program with volunteers. It provides an opportunity to work together in the out-of-doors to achieve an identifiable common goal. In 1983, conservation-minded individuals and groups contributed 976 person-years of labor to the total recreation program on the National Forest--up 19 percent from 1982. We estimate that of this total 110 person-years and 10,000 miles of trail maintenance was performed under the supervision of Forest Service officers.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Trail Maintenance.....\$	9,408	8,377	-1,031
FTE	272	243	-29

Proposed funding will maintain 50,700 of the highest priority miles and will provide for volunteer assistance under provisions of Section 11 of the National Trail Systems Act. Volunteers are expected to accomplish an additional 10,000 miles of trail maintenance. The remaining 37,800 miles of the 98,500 mile system will receive custodial (level I) maintenance.

A decrease of \$11,000 is associated with improved efficiencies in administrative support activities.

Object class information:

Salaries and benefits	-511
Travel	-58
Transportation of things	-21
Supplies, and equipment	-158
Other contractual services	-283
Total	-1,031

Timber Sales Administration and Management

	1983	1984	1985	1985	Inc.(+) or Dec.(-) from Base
	Actual	Appropriation Enacted to Date (Dollars in thousands)	Base	Estimate	
Timber resource					
inventory					
planning\$	10,572	10,146	10,424	10,926	+502
(thousand acres) ..	1,280	1,280	1,280	1,280	--
FTE	333	306	306	316	+10
Silvicultural					
examination					
administration\$	24,198	21,635	22,228	24,047	+1,819
(thousand acres) ..	5,974	5,560	5,560	5,678	+118
FTE	762	653	653	695	+42
Sales preparation					
and harvest					
administration\$	127,355	153,608	157,816	164,883	+7,067
(BBF offered).....	11.3	11.7	11.7	11.2	-.5
FTE	4,013	4,637	4,637	4,762	+125
Total	\$ 162,125	185,389	190,468	199,856	+9,388
FTE	5,108	5,596	5,596	5,773	+177

General: A significant portion of the Nation's timber resources are on the National Forests. These lands contain 50 percent of the country's inventory of softwood sawtimber. The demand for forest products increased by 70 percent in the past 30 years, and the current prediction is that this demand for lumber, plywood, and other timber products will double in the next 50 years. Forest plans and related resource management programs must anticipate higher output from the National Forest System, if higher outputs can be produced on an economical basis.

Future production increases cannot occur on short notice. They must be "planned into the pipeline" so that an orderly process can be observed to complete required planning steps and proper coordination with other resources.

Timber Sales Planning and Preparation Process. The timber sale preparation process follows the direction established in the Forest Land Management Plan. It begins with the identification of a project area and ends with the award of a timber sale contract. A 5-year timber sale action plan is maintained as a scheduling device for the sale preparation process.

The sale preparation process:

Position Statement Development - completed at least 5 years before sale offering.

This process follows the direction established in current multiple-use plans or the Forest Land Management Plan.

It includes extensive reconnaissance and data gathering by staff specialists to develop recommendations on the feasibility of preparing a timber sale proposal. It also serves as the beginning of the National Environmental Policy Act (NEPA) process. This position statement is a prerequisite for entering the proposed timber sale project in the 5-year timber sale action plan and for making further project investments. A proper review conducted at this point should eliminate uneconomic or environmentally unsound project proposals before significant investments are made.

Sale Area Design - prepared 1-3 years before sale offering.

The sale area design process is an intensive field investigation within and adjacent to the proposed project area. Information obtained by staff specialists provides the basis for the analysis, evaluation, and preparation of alternatives under the NEPA process. As a result of environmental analysis, the responsible official determines need for a formal decision document. Sale area planning follows management direction in the Forest Management Plan and/or Multiple-Use Plan. The planning and design normally considers the development of an entire drainage, adjacent area, transportation analysis area, or other logical planning unit, even though a proposed timber sale may affect only a portion of the area. Consideration is given to the pattern, methods, and timing of treatments for the entire area to ensure that future treatments will effectively meet management objectives. Detailed information is developed which describes the conditions of timber stands proposed for harvest, silvicultural prescriptions, logging systems applications, the location of key local roads, and planned fuel treatments.

Sale Plan Implementation - completed 3 months to 1 year before sale offering.

This activity provides for the implementation of the sale plan as developed during the sale area design. This includes timber marking, timber volume and quality determination, on-the-ground location of harvest units, logging systems, and survey and design of roads. Property lines are located and the necessary cost-sharing agreements and right-of-way easements are obtained.

Final Sale Package Preparation, Review, Appraisal, and Offering - completed 2-3 months before sale offering.

The contract, timber appraisal, advertisement, bid form, prospectus, and sale area map are assembled as a complete package. This activity is concluded with the offering of the completed package through advertisement.

Bid Opening

This includes accepting the bids, conducting an auction when appropriate, and determining the successful bidder.

Sale Award

After the apparently successful bidder has been identified, bidder qualifications, must be determined, EEO clearance must be obtained, a road option investigation and feasibility must be completed, if applicable, and finally, the sale is awarded.

FY 1985 Timber Sales Program and Timber Support

<u>Title</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
	(Dollars in thousands)		
National Forest System:			
Timber Management	129,334	140,279	137,554
Harvest Administration	32,791	45,110	62,302
Timber Support to Other Programs	-3,785	-8,354	-10,208
Subtotal, Timber Sales Program	<u>158,340</u>	<u>177,035</u>	<u>189,648</u>
Support to Timber Sales Program:			
Minerals	1,189	939	1,195
Land line location	18,944	22,103	22,531
Forest fire protection	3,754	4,051	4,989
Road maintenance	39,447	31,933	35,710
Recreation	6,147	8,346	7,237
Wildlife and fish	6,954	8,410	8,187
Range	486	889	800
Soil and water	6,609	8,523	8,845
Subtotal, Timber Support	<u>83,530</u>	<u>85,194</u>	<u>89,494</u>
Total, National Forest System	241,870	262,229	279,142
Road Construction:			
Forest Service construction	189,601	210,620	200,915
Purchaser construction	(240,000)	(240,000)	(286,226)
Purchaser roads constructed			
by Forest Service	44,900	50,475	33,903
Total, Road Construction	<u>234,501</u>	<u>261,095</u>	<u>234,818</u>
Special Accounts:			
Brush Disposal	47,844	48,300	41,822
Timber Salvage Fund	14,106	12,775	16,055
Tongass Timber Supply Fund	42,520	41,083	45,190
Total, Special Accounts	<u>104,470</u>	<u>102,158</u>	<u>103,067</u>
TOTAL, TIMBER SALES PROGRAM <u>1/</u>	580,841	625,482	617,027
		<u>Outputs</u>	
Timber prepared (BBF)	11,283	11,700	11,200
Timber offered (BBF)	11,283	11,700	11,200
Timber harvested (BBF)	9,244	10,000	11,200

1/ Includes Oregon and California (O&C) Grant Lands funding.

Timber Resource Inventory Program

General: The timber resource program provides information for the orderly management of the timber resources on the National Forests. The information is primarily used to determine lands suitable for timber production, timber sales schedules, and opportunities for maintaining or increasing yields through intensive forest management in the course of developing land and resource management plans.

Objective: To gather and provide timely information on the extent and condition of the timber resource on National Forest System lands, as required to meet the direction contained in the National Forest Management Act of 1976.

Program description: Timber resource inventories provide the information necessary to compile land classification, timber volume determination, growth rates, and other information required for the periodic development and updating of land and resource management plans. These inventories describe the state of the timber resource on each National Forest. This provides a basis to evaluate changes during the planning period. Additionally, they provide resource information for research publications and National RPA assessments. Approximately 1.3 million acres of National Forest System lands are inventoried annually under this program, in order to have a systematic schedule to meet the requirements for a 10-year review cycle for National Forest System land and resource management plans.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Timber resource inventory program \$	10,424	10,926	+502
FTE	306	316	+10

The 1985 proposal of \$10,926,000, an increase of \$502,000 will provide for the collection of timber inventory data on 1,280,000 acres of National Forest System lands necessary to keep on schedule for the preparation and update of individual National Forest System land and resource management plans. This is the same number of acres to be inventoried in 1984. The unit cost increase from \$8.14 per acre in 1984 to \$8.53 per acre in 1985 (5 percent) is due to increases in the number of acres with less road access.

A decrease of \$3,000 associated with improved efficiencies in administrative support activities and \$12,000 associated with a phased reduction of positions in grades GS/GM 11-15 is a part of this program.

Object class information:

Salary and benefits	+228
Travel	+26
Transportation of things	+14
Supplies, materials and equipment	+52
Other contractual services	+182
Total	+502

Silvicultural Examination

Objective: To provide a periodic review and analysis of the condition and treatment needs for timber stands to meet forest and resource management plan objectives. This activity also provides information needed to monitor and certify silvicultural treatments to ensure that the timber resource is managed properly and responsibly.

Program description: This activity includes the gathering of timber stand data, compiling and storing the data in stand files, and preparing an analysis and written prescription for approximately 5 million acres of forest land to ensure proper treatment. Timber stands are normally scheduled for examination at 10-year intervals to allow land managers to keep track of changing stand conditions and treatment needs. Timing of the examinations is of the utmost importance. Examinations need to be accomplished 4-5 years before the proposed treatment, such as a timber sale, to allow for the orderly development of treatment prescriptions and use of the information in the National Environmental Policy Act (NEPA) process. Although most stand examinations are conducted by Forest Service employees, there has been an increase in recent years in the number of acres accomplished through contracting.

A stand prescription is a written document prepared by a certified silviculturist that describes the current stand conditions and the silvicultural treatments proposed for a timber stand. The prescription is based upon the data from the silvicultural examination. The prescription includes a description of the physical site factors, management direction, and the treatments that will meet the objectives for the area. Prescriptions for timber cutting, reforestation, and stand improvement describe the sequence of events, timing, and techniques of the treatments to be used. The prescription also describes the desired stand after treatment in terms of tree density and distribution and species composition following treatment, and growth objectives so as to serve as a basis for treatment monitoring and evaluations.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Silvicultural Examination	\$ 22,228	24,047	+1,819
FTE	653	695	+42

This planned fiscal year 1985 program of \$24,047,000, an increase of \$1,819,000 from the base, will provide for stand examination on 5,678,000 acres, which are necessary to support the 11.2 billion board foot timber sales preparation program in 1985 and beyond. Data collection and prescription preparation for other stand improvement work will be done for the reforestation and stand improvement program. The average cost of stand examination work is estimated to increase by 2.4 percent (\$4.14 per acre in 1984 to \$4.24 per acre in 1985).

A decrease of \$7,000 associated with improved efficiencies in administrative support activities and \$27,000 associated with a phased reduction of positions in grades GS/GM 11-15 has been made a part of this program.

Object class information:

Salary and benefits	+959
Travel	+80
Transportation of things	+45
Supplies, materials and equipment	+164
Other contractual services	+571
Total	+1,819

Sale Preparation and Harvest Administration

Objective: To carry out a timber sale program that:

1. Complies with applicable laws, regulations, and forest land management plans.
2. Is responsive to both the short- and long-term economic factors guiding the restoration of a healthy forest products industry that can provide the Nation with a stable supply of wood products at marketable prices.
3. Incorporates cost-efficiency and cost effectiveness as a basic decision tool while providing for the necessary protection of National Forest resource values over the long term.
4. Is aggressive in optimizing the utilization of the available wood supply through advanced technology and marketing opportunity.
5. Incorporates improved practices and procedures aimed at protection of the overall public interest.

Program description: Timber sale preparation and harvest administration is a multi-faceted program. Each facet is described under separate headings which include: timber sale preparation and harvest administration, heli-stat, substitute earth anchor systems, and wood residue and fuelwood.

Timber Sale Preparation and Harvest Administration

Timber sale preparation program activities have been detailed in the general remarks above. The 1985 preparation program will involve work on sales to be offered in 1985, but most of the work will affect sales to be offered in 1986 through 1990.

	<u>Sales Prepared (bbf)</u>	<u>Sales Offered (bbf)</u>	<u>Volume Harvested (bbf)</u>	<u>Housing Starts * (in millions)</u>
1976	10.3	10.3	9.6	1.5
1977	11.6	11.0	10.5	2.0
1978	12.2	12.6	10.1	2.0
1979	12.4	12.4	10.4	1.8
1980	12.4	12.4	9.1	1.3
1981	12.2	12.2	8.0	1.1
1982	11.4	11.1	6.7	1.1
1983	11.3	11.3	9.2	1.6**
1984 planned	11.7	11.7	10.0	1.8
1985 planned	11.2	11.2	11.2	1.9

* Department of Commerce

** OMB Economic Assumptions

During the late 1970's, high prices were realized in sales. This was attributable to anticipated housing construction levels (in the early 1980's) that never materialized. Consequently, some sales will not be completed and the Forest Service estimates that 200-400 million board feet will need to be resold annually until the market has fully recovered.

Special programs which will be developed or implemented in 1985:

- National direction for a tree measurement sale program.
- A second phase of the sales tracking and reporting system (STARS) which will readily provide additional data on the sales program.
- National direction on transaction evidence appraisal systems.
- A revised national timber sale contract.
- Development and initial testing of a measurement system for using cubic measurement to scale logs.
- Emphasis on mill studies to provide basic data needed for appraisals.

Support from other budget line items is an integral part of the timber sale program. Inventory analysis and impact assessment of other National Forest resources is necessary to meet the requirements of the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA). Sale preparation and administration require engineering services for transportation planning, survey, design, contract preparation, construction inspection, and road maintenance. The sale program requires strong support in cadastral surveys where sales are planned adjacent to other ownerships. Right-of-way acquisition is another ongoing support program to timber sales.

A portion of the sale program, including fuelwood, is proposed to be funded from other sources as follows:

Tongass Timber Supply Fund (permanent appropriation) - 460 million board feet, \$45,190,000.

Timber Salvage Sale Fund (permanent appropriation) - 586 million board feet, \$16,055,000

Heli-Stat

The Heli-Stat project is intended to provide for the design, fabrication, and field testing of a lighter-than air, heavy lift aerial vehicle that will economically yard logs to a distance of at least 5 miles. The vehicle combines four helicopters with a helium-filled balloon. The balloon provides the static lift to support itself, the helicopters and the interconnecting structure. The helicopters provide the dynamic lift. Initial studies indicate this vehicle will economically transport approximately 26 tons of logs up to 5 miles.

The objectives of this program are: 1) To demonstrate to the logging industry that the concept of a lighter-than-air, heavy-lift vehicle is practical and safe for logging on steep, fragile terrain. 2) To provide private industry and the Federal Government with the basic knowledge about the feasibility of such a vehicle for heavy-lift and long distance aerial transportation capabilities. 3) To prepare and offer timber sales from environmentally sensitive areas currently uneconomical to log using existing technology.

During 1985, \$5.7 million is budgeted for the Heli-Stat program. Of this \$4.8 million is for completion of the Helti-Stat vehicle, flight crew training, flight tests and the initiation of logging qualification trails at Lakehurst, New Jersey. The remaining \$.9 million is for preparation of the Allegheny National Forest logging trial site and continuation of the support programs on the West Coast.

Fuelwood

Fiscal year 1983 showed a decrease in the amount of fuelwood use from National Forest System land compared to FY 82. The equivalent of 1.7 billion board feet (bbf) of fuelwood was sold and given free in FY 83 compared to 2.6 bbf in FY 82. Of the 1.7 bbf, 0.6 bbf was sold and 1.1 bbf was free use. The return for the sold fuelwood was over \$4.2 million.

The fuelwood program costs is borne mostly by \$3.650 million from timber sale funds with supplementation from other benefitting funds including brush disposal, K-V, and the salvage sale fund. Benefits to these programs from the fuelwood program are described below.

A minimum \$10 charge per fuelwood permit was implemented during the 1983 woodcutting season (in mid-fiscal year) along with free use where demand was small. This resulted in less than half the free use of fuelwood compared to 1982. The overall decrease in fuelwood use is attributed to a flattening demand due to stabilizing prices for other fuels, less fuelwood per permit in order to balance demand with supply, loss of interest in "cutting your own firewood", some resistance to paying for fuelwood that previously was free, and some carryover volume due to a mild winter last year.

Fuelwood use for 1984 should level out with a small increase projected for 1985. The proportion of fuelwood sold should increase as Forests continue phasing-in the charge per fuelwood permit.

Fuelwood harvest continues to provide protection and silvicultural improvement to the National Forest System. Residues from commercial timber harvesting operations are often utilized by fuelwood cutters. Such cutting reduces the buildup of fuel on the forest floor and reduces the cost to the Forest Service for final disposal of this fire hazard. The public also contributes significantly in the salvage of fallen or standing dead trees in stands killed by fire or insects by the cutting and removing allowed through the fuelwood program.

Young stands with an overstocking of trees are improved through thinning cuts. Under the supervision and/or designation of a Forest Officer, the Forest Service accomplishes timber stand improvement at reduced costs through the wood cutters contributed labor.

The program accomplishments in the fuelwood harvested are shown in the following table and graph. This volume is in addition to volume reported as harvest in previous tables.

Harvest Volume (billion board feet)			
<u>Fiscal Year</u>	<u>Free</u>	<u>Sold</u>	<u>Total</u>
1979	1.6	0.1	1.7
1980	2.2	0.1	2.2
1981	2.1	0.1	2.2
1982	2.4	0.2	2.6
1983	1.1	0.6	1.7
1984	0.8	1.0	1.8
1985	0.7	1.3	2.0

National Forest Fuelwood Use

Volume Sold and Free

Billion Board Feet

2.7

2.6

2.5

2.4

2.3

2.2

2.1

2.0

1.9

1.8

1.7

1.6

1979

1980

1981

1982

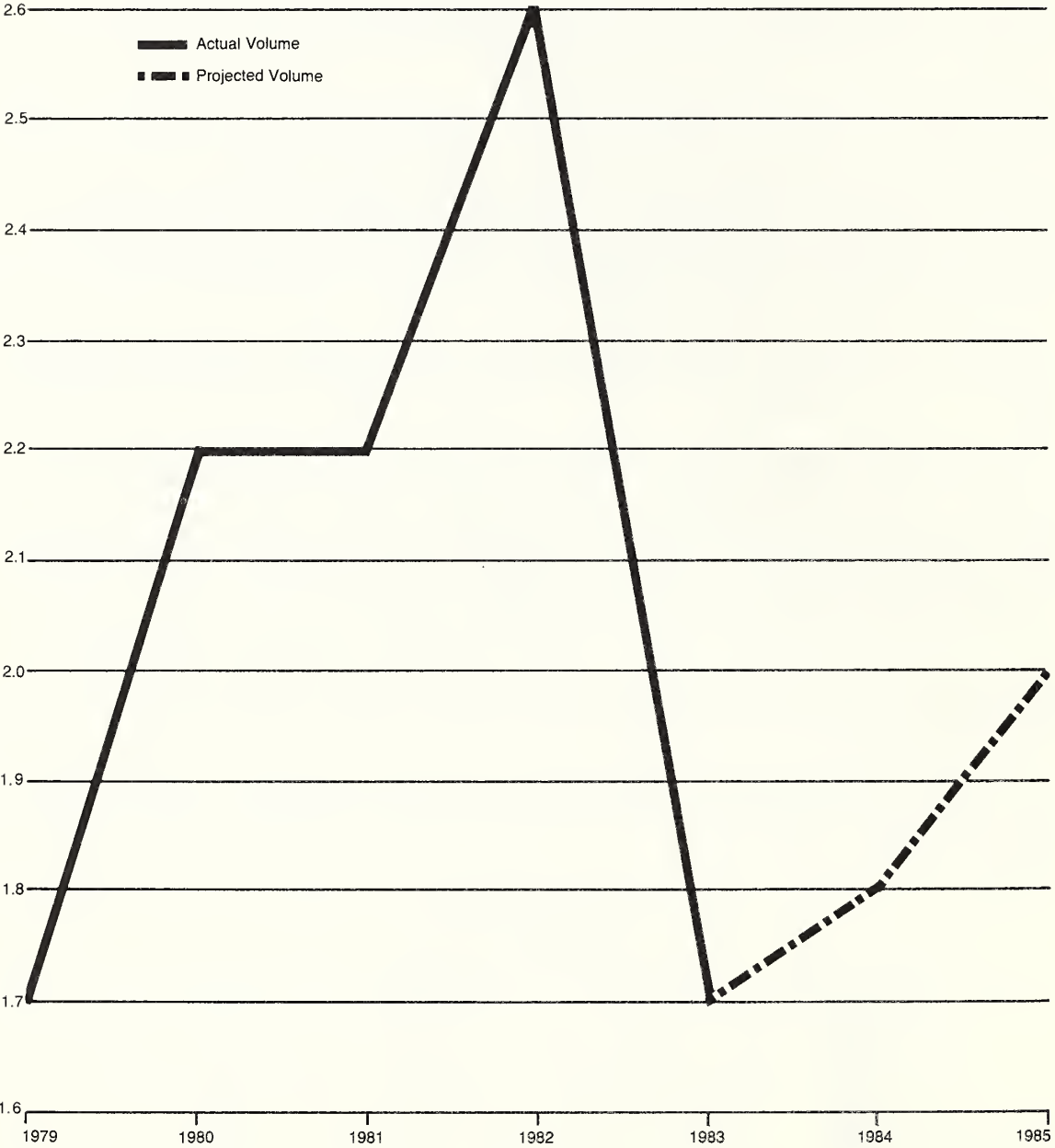
1983

1984

1985

Fiscal Year

Actual Volume
Projected Volume



Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Sale preparation and harvest administration			
\$	157,816	164,883	+7,067
FTE	4,637	4,762	+125

The increase of \$7,067,000 is composed of a decrease of \$8,889,000 for timber sale preparation and offering and an increase of \$15,956,000 for harvest administration. Timber sale preparation funding provides for the preparation and offering of 11.2 billion board feet in FY 1985 and beyond. This is approximately 500 million board feet of timber sales less than FY 1984. The timber sales preparation program will provide for advance sale preparation to permit future increases in the sales program if warranted by demand. The FY 1985 salvage sale program will support an output of 586 million board feet and is included in the total volume of 11.2 billion board feet.

The Resource Support financing will provide the needed impetus for the preparation and coordination for the FY 1985 levels and beyond. Particular emphasis for resource support efforts in soil and water, cultural resources, wildlife, and fisheries will enable needed inventories and analysis for environmental issues that have been the point of numerous administrative appeals. Other emphasis in fire and range will provide a level of support to meet the important issues of forest residue treatments and transitory range opportunities.

Harvest administration is increased \$15,956,000 over the base. This will finance a projected 11.2 billion board feet harvest volume in response to predicted continued improvement in market conditions. The additional funding is responsive to the increased complexity of administering contracts that have had 5 to 7 years of additional extensions, administering contract defaults, appeals, and law suits.

The 1985 funding level for sale preparation and harvest administration recognizes the "pipeline" nature of the timber sales program. While sale offerings in 1985 will be 11.2 billion board feet, funding is provided to maintain the out-years sale planning level in order to allow for the potential future increases in wood supply needs.

The funding level includes a decrease of \$52,000 associated with improved efficiencies in administrative support activities and \$179,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+2,855
Travel	+393
Transportation of things	+218
Supplies, materials and equipment	+806
Other contractual services	+2,795
Total	+7,067

The funding needed for the preparation and offer of 200 million board feet of timber sales from Oregon and California Grant Lands in FY 1985 is included in the Forest Service budget. The following table illustrates this proposal:

**Funding Table For
Oregon and California (O&C) Grant Lands**

<u>ITEM</u>	<u>FY 1983 ^{1/}</u> <u>Actual</u>	<u>FY 1984 ^{2/}</u> <u>Estimate</u>	<u>FY 1985 ^{3/}</u> <u>Estimate</u>
	(Dollars in thousands)		
<u>Construction:</u>			
Transportation Construction	\$ 300	500	600
<u>Operations and Maintenance</u>	625	631	1,344
<u>Renewable Resources:</u>			
Timber Management	6,729	6,021	5,262
Volume (million board feet) .	(200)	(200)	(200)
Forest Development			
Ref/TSI	760	900	851
(acres)	(2,364)	(2,000)	(1,000)
Forest Protection	520	523	645
Resource Planning	450	455	537
(LMP)	<u>(76)</u>	<u>(110)</u>	<u>(150)</u>
Total	\$9,384	9,030	9,239

- 1/ The FY 1983 funding level was included in the Bureau of Land Management O&C Grant Lands Appropriations and transferred to the Forest Service for administration of these lands.
- 2/ The FY 1984 funding level includes \$2,655,000 transferred from the Bureau of Land Management O&C Grant Lands appropriations.
- 3/ The FY 1985 O&C Grant Lands funds are included in the Forest Service Budget.

Reforestation and Stand Improvement ^{1/}

	1983 Actual	1984 Appropriation enacted to Date	1985 Base	1985 Estimate	Inc.(+) or Dec.(-) from Base
<u>Reforestation: ^{2/}</u>					
NFS/RTF\$ (Thousand acres)	89,086 208	43,714 144	44,713 144	44,219 134	-494 -10
KV\$ (Thousand acres)	66,300 169	68,900 215	70,116 215	70,764 216	+648 +1
<u>Stand Improvement: ^{3/}</u>					
NFS/RTF\$ (Thousand acres)	53,774 429	26,062 174	26,688 174	26,725 187	+37 +13
KV\$ (Thousand acres)	20,350 127	21,900 142	22,287 142	19,326 132	-2,961 -10
<u>Nurseries:</u>					
NFS/Trust\$ (million seedlings)	19,103	15,671	15,847	11,015	-4,832
Nursery stock-NFS .	136	133	133	130	-3
Nursery - other ...	11	11	11	11	--
TOTAL - NFS/RTF\$	161,963	85,447	87,248	81,959	-5,289
FTE	2,862	1,559	1,559	1,522	-37
TOTAL - KV\$	86,650	90,800	92,403	90,090	-2,313
FTE	1,318	1,641	1,641	1,606	-35
GRAND TOTAL\$	248,613	176,247	179,651	172,049	-7,602
FTE	4,180	3,200	3,200	3,128	-72
Reforestation (thousand acres)	377	359	359	350	-9
KV (thousand acres)	556	316	316	319	+3
Nurseries (million seedlings)	147	147	144	141	-3

^{1/} Funding and acres of reforestation and stand improvement under the Knutson-Vandenberg (KV) and the Reforestation Trust Fund (RTF) are shown here for display of the major elements of the program. See the Trust Fund and Reforestation Trust Fund sections for additional information.

^{2/} Includes \$15,000,000 and 14,500 acres of reforestation accomplished under 1983 Jobs Bill. Does not include 65,500 acres of site preparation for future planting accomplishment.

^{3/} Includes \$20,000,000 and 158,000 acres of timber stand improvement accomplished under the 1983 Jobs Bill.

General: Reforestation and stand improvement activities are directed toward obtaining adequate stocking of forest lands and maintaining a level of timber productivity for the sustained-yield management of National Forest System lands. The objective is to increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs. The reforestation and stand improvement program is financed with Appropriated funds, and trust funds.

Sources of Reforestation and Stand Improvement Funding

	<u>1983</u>	<u>1984</u> (Dollars in thousands)	<u>1985</u>
1983 Appropriated Funds	22,963	--	--
1984 Appropriated Funds	--	19,516	--
1985 Appropriated Funds	--	--	50,344
Jobs Bill	35,000	--	--
Trust Funds:			
Reforestation Trust Fund	104,000	65,931	31,615
Knutson-Vandenberg (KV)	<u>86,650</u>	<u>90,800</u>	<u>90,090</u>
Total	\$248,613	\$176,247	\$172,049

Reforestation

Objective: To annually reforest an area equal to the area deforested in the preceding period while eliminating the feasible backlog by 1985.

Program description: As of October 1, 1983, an estimated 1,013,000 acres of National Forest System lands needed to be reforested. These needs result from the harvesting of timber; natural disasters such as fire, storms, insects and disease, and previous seeding, planting or natural regeneration failures. Such needs accrue continually over the years. The Forest Service meets those needs through seeding, planting, and preparing sites to encourage natural regeneration when that is the management prescription. Some areas regenerate naturally without requiring cultural or other special treatment and investments. Each year the estimate of needed reforestation changes as accomplishments are reported, new inventories are completed, and new additions occur as a result of timber harvests and other factors.

Part of the needed reforestation stems from a "backlog" of such work that existed for many years. For example, on October 1, 1983, this totaled an estimated 222,945 acres. About 123,000 acres of this backlog cannot be programmed for reforestation due to lack of access, incomplete land management planning (RARE II further planning areas is one illustration), constraints on herbicide use, economic, or other factors. It is possible that some of the 123,000 acres may never need to be programmed because of natural regeneration during the waiting period, and management planning decisions that may remove these acres from commercial forest land, management considerations, or other factors. The backlog balance of 99,945 acres is projected to be completed by the end of 1985.

The following table shows the existing reforestation needs to be accomplished through October 1, 1985:

	<u>Backlog</u>	<u>Current or Anticipated</u> (thousands of acres)	<u>Total</u>
Balance:			
October 1, 1983	223	790	1,013
Additions:			
October 1, 1983 -October 1, 1985	--	850	850
Accomplishments:			
October 1, 1983 -October 1, 1985	100	612	712
Balance:			
October 1, 1985	123	1,028	1,151

When the existing carryover of "backlog" work is completed, current reforestation needs are expected to level off at about one million acres. There is usually a 2 to-3 year lag between the time that an area is deforested and the time that reforestation can be accomplished. This indicates a continuing reforestation program of about 400,000 acres per year, including K-V work.

Reforestation represents a capital investment opportunity and cost-effectiveness is a primary concern in planning and scheduling the work. The program is guided by efforts to make improvements in benefit-cost analysis, site productivity measurement, regeneration techniques, and related work. Certification of lands reforested is done following periodic on-the-ground examination to verify the success of the treatment used to establish trees on the area.

Decrease for 1985:

	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Decrease</u>
Reforestation	44,713	44,219	-494
\$	798	821	+23
FTE			

The proposed \$44,219,000 program for FY 1985, a decrease of \$494,000, will provide the funding necessary for the complete reforestation of 134,000 acres.

The decrease of 10,000 acres from 1984 is sufficient to maintain current needs levels because of the reduced harvest levels in 1983. Reforestation of about 33,000 acres of backlog acreage will be accomplished and with the 67,000 acres programmed in 1984 eliminate the feasible backlog acreage by 1985.

Because of more difficult planting sites, the lack of good access, a reduction in human resources programs (YCC and YACC), and increases in animal control costs, the costs of reforestation have continued to rise. The average cost of \$330 for reforestation in 1985 compares to \$310 in 1984. This 6 percent increase is due primarily to the higher costs of site preparation and planting on the remaining backlog acreage.

This program is consistent with the planned nursery seedling production for 1985 and recognizes the need to keep the current budgets levels as low as possible and still meet management objectives.

This funding level includes a decrease of \$17,000 associated with improved efficiencies in administrative support activities and \$62,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+417
Travel	-16
Transportation of things	-12
Lands and structures	-68
Supplies, materials and equipment	-220
Other contractual services	-595
Total	-494

Timber Stand Improvement (TSI)

Objective: To improve timber growth and protection by maintaining stocking control and removing competing vegetation. Activities include release of desirable trees from competing vegetation, thinning, and fertilizing.

Program description: As of October 1983, an estimated 1,587,697 acres needed timber stand improvement treatment to improve the growing condition of the timber stands. Of this amount, 471,416 acres needed release and 1,116,281 acres needed thinning. It is estimated that TSI needs will be about 1,856,000 acres by 1985. Each year about 400,000 acres of new stands are created by reforestation and as these stands grow, many will need to be released from competing vegetation and/or precommercially thinned to maintain healthy, vigorous stand of trees.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Timber stand improvement	\$ 26,688	26,725	+37
FTE	475	496	+21

A \$26,725,000 program, an increase of \$37,000, will accomplish 187,000 acres of stand improvement work--an increase of 3,000 acres over 1984. The average cost per acre in 1985 is estimated to be \$143. This 6 percent decrease from 1984 is due primarily to Forests continued efforts to emphasize cost-effectiveness by concentrating stand improvement work on those sites with the highest potential for future growth and the highest economic returns.

Included in this funding level is a decrease of \$9,000 associated with improved efficiencies in administrative support activities and \$32,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+381
Travel	-6
Transportation of things	-4
Lands and structures	-26
Supplies, materials and equipment	-83
Other contractual services	-225
Total	+37

Nursery and Tree Improvement Operations

Objective: To ensure the orderly development of timber production on commercial forest land in the National Forest System by improving the genetic quality of seed and planting stock and by producing high quality planting stock in appropriate numbers for reforesting timber lands in a timely manner.

Program description: Twelve bare-root and four container nurseries are operated to produce high quality forest tree planting stock in adequate quantities to meet RPA goals and the requirements of the National Forest Management Act. Operation of all these nurseries, but one, is funded through a Working Capital Fund.

Forest Tree Improvement programs have been implemented to varying degrees in all regions. The programs have two primary goals: (1) apply sound genetic principles to all silvicultural prescriptions; and (2) provide seed for seedling production that will yield adaptable, fast growing, high quality, pest resistant trees. Programs implemented by all regions include establishing seed collection zones and breeding zones based on physiographic and biological data. This will ensure that the seed is used in a locality where it is adapted and avoid losses due to poor planting stock. Other programs are implemented for selected species and zones where investments can be justified. These programs include tree selection, seed orchard establishment and management evaluation, plantation establishment and management, and selective breeding.

Decrease for 1985:

		<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Nursery and tree improvement operations	\$	15,846	11,015	-4,831
	FTE	286	205	-81

The \$11,015,000, for fiscal year 1985 includes \$3,305,000 for nursery maintenance and \$7,710,000 for the tree improvement program. The decrease of \$2,000,000 will be absorbed by the nursery management program in recognition of the reduced level of seedling production needed for the 1985 reforestation program. The tree improvement program will be decreased by \$2,831,000 and will concentrate upon the production of seeds and seedlings for improved planting stock and increased yields in the future. On going projects will be maintained. Many initiatives scheduled to begin in moderate to high priority breeding zones will be delayed.

Nursery construction requirements are displayed in the Construction section.

Object class information:

Salary and benefits	-1,470
Travel	-60
Transportation of things	-43
Lands and structures	-250
Supplies, materials and equipment	-811
Other contractual services	-2,197
Total	-4,831

Recreation Use

		1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars	1985 Base (in thousands)	1985 Estimate	Inc.(+) or Dec.(-) from Base
<u>Recreation Management:</u>						
(Million RVD's)		217.8	228.2	228.2	228.2	--
Public sector recreation sites million PAOT days		124.2	103.0	103.0	99.3	-3.7
Cost	\$	85,905	83,798	86,027	80,435	-5,592
FTE		2,517	2,461	2,461	2,334	-127
<u>Wilderness Mgmt:</u>						
(million RVD's)		9.9	11.8	11.8	11.8	--
Wilderness mgmt. (million acres)		25.2	25.2	25.2	25.2	--
Costs	\$	6,703	6,722	6,901	7,875	+974
FTE		196	197	197	226	+31
<u>Cultural Resource Mgmt:</u>						
Cultural resource inventories (million acres cleared)		2.8	3.3	3.3	2.9	-.4
Costs	\$	7,166	9,269	9,515	9,230	-285
FTE		210	272	272	268	-4
Total	\$	99,774	99,789	102,443	97,540	-4,903
RVD's		227.7	240.0	240.0	240.0	--
FTE		2,923	2,930	2,930	2830	-100

1/ RVD Recreation Visitor Day

General: More outdoor recreation occurs on National Forest System land than on any other Federal property; or any other single land holding. Federal lands received 554 million visitor days in 1982, 42 percent (233 million visitor days) was provided by the Forest Service. Recreation use of the National Forests embodies the activities, services, and facilities necessary to accommodate approximately 240 million visitor-days of use. This use ranges from opportunities provided to senior citizens who spend many of their retirement hours camping at Forest Service campgrounds, to backpackers who find remote hiking trails to enjoy, and to winter sports enthusiasts who flock to commercially operated ski areas located on the National Forests.

The Forest Service coordinates with entrepreneurs in the private sector and other government agencies to see that programs are complementary and there is no unnecessary duplication of facilities and services. The private sector is encouraged to develop and maintain the more urbanized public recreational facilities which are incompatible with National Forest System settings.

Recreation Management

Objective: To manage and protect the natural resources and facilities which will accommodate the public's need for outdoor recreation, emphasizing opportunities to know and experience nature; to maintain facilities necessary to meet rising demands for natural resource oriented recreation, utilizing private sector capital financing through concession arrangement when appropriate.

Program description: The Forest Service provides a variety of recreation opportunities for the enjoyment and health (mental and physical) of the public. To facilitate the opportunities, one segment of the recreation program is the operation and maintenance of the following facilities:

	<u>Number</u>	<u>Capacity</u>
Family campgrounds	4,170	414,302
Group campgrounds	249	29,359
Family picnic grounds	1,348	89,828
Group picnic grounds	103	14,258
Swimming sites	309	72,271
Boat sites	985	89,225
Interpretive and information	655	48,961
Observation and other sites	1,066	63,120
Winter sports sites	100	11,870

Historically, one-quarter of the total recreation use of National Forest System lands occurred at these Forest Service facilities which are designed and maintained to help visitors enjoy the unmodified environment.

The Forest Service also issues and administers permits to individuals and groups to provide additional recreation opportunities. In 1983, the number of permits for the private sector were:

Recreation residences	16,000
Winter sports resorts	168
Organization camps	479
Lodges and resorts	336
Outfitting and guiding	2,400
Other concession sites	153

These privately operated facilities provide one-tenth of the total recreation use on National Forest System lands. The National Forest System has the recreation facility capacity for 158 million PAOT-days. PAOT-days is the capacity of recreational facilities, expressed as Persons-At-One-Time, multiplied by the number of days the facility is open. Two-thirds of recreation use occurs away from facilities in the general forest area.

Major emphasis will continue to be placed on providing economically efficient recreation opportunities and facilities. User fees will be charged for about 2,000 of the 6,000 National Forest System family campgrounds, group campgrounds, and swimming sites as authorized by the Land and Water Conservation Fund Act of 1965 as amended. The remainder do not offer the amenities required by law for a charge area or are uneconomical due to their size or location. Recreation user fees collected in 1983 totaled \$11,309,702. Receipts from recreation special uses increased by 16 percent to \$16,490,624.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Recreation management \$	86,027	80,435	-5,592
FTE	2,461	2,334	-127

A decrease of \$5,592,000 will allow the Forest Service to operate approximately 99.3 million PAOT-days of managed facility use. The portion of the program managed to standard level of service will be 67.5 million PAOT-days.

Every effort will be made to keep facilities open for the major portion of the summer season. However, some facilities will be opened later in the spring and some will be closed earlier in the fall than in the past.

A decrease of \$30,000 is associated with improved efficiencies in administrative support activities, and \$106,000 is associated with phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-2,982
Travel	-229
Transportation of things	-116
Suplies, materials and equipment	-674
Other contractual services	-1,591
Total	-5,592

Wilderness Management

Objective: To provide for wilderness use, protect the wilderness resource, and minimize conflict between uses of wilderness and the wilderness values of solitude, naturalness, ecology, geology, and similar features of scientific, educational, or historical value; and to manage the resource to provide 11.8 million recreation visitor days.

Program description: The Forest Service manages 164 wilderness areas and nine primitive areas totaling 26.2 million acres or about 14 percent of all National Forest System lands. Recreation use of these areas was 9.9 million visitor days in 1983.

To accomplish the stated objectives and comply with the legislation regarding wilderness, it is cost-effective to inform visitors of rules and regulations through the use of maps, brochures, visitor registration or permits; manage and coordinate the variety of uses including grazing, outfitting, and guiding activities to preserve the wilderness resource; and take action necessary to remove trash and other evidences of man.

Increase for 1985:

	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Increase</u>
Wilderness management \$	6,901	7,875	+974
FTE	197	228	+31

An increase of \$974,000 will provide for supervision of the increased volunteer program in wilderness management.

Object class information:

Salary and benefits	+728
Travel	+22
Transportation of things	+11
Suplies, materials and equipment	+64
Other contractual services	+149
Total	+974

Cultural Resource Management

Objective: To protect and manage the cultural resources located on National Forest System lands and to implement the requirements of the National Historic Preservation Act, the National Environmental Policy Act, the Archaeological Resource Protection Act, and USDA regulations. To assist in meeting resource output targets in timber, range, minerals, and special uses.

Program description: To implement these requirements it is necessary to identify, evaluate, preserve (where appropriate), and interpret the remains of the Nation's historic and prehistoric past found on National Forest System lands in advance of development projects. Archaeologists locate significant cultural resources and prescribe ways to implement other management projects without adversely affecting the historic or cultural resource. In 1983, 83 percent of the acres surveyed and 80 percent of the acres cleared were in support of timber, minerals, and energy resource development programs. Acres reported as surveyed are those acres actually examined. Acres cleared are those included within a project's boundaries for which compliance actions have been concluded.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Cultural resource management...\$	9,515	9,230	-285
FTE	272	268	-4

A decrease of \$285,000 will meet the inventory, evaluation, and mitigation requirements for all National Forest activities with emphasis on timber, mineral, energy and range programs.

Object class information:

Salary	-94
Travel	-17
Transportation of things	-9
Supplies, materials and equipment	-49
Other contractual services	-116
Total	-285

Wildlife and Fish Habitat Management

	1983 <u>Actual</u>	1984 Appropriation enacted to Date (Dollars in thousands)	1985 Base	1985 <u>1/</u> Estimate	Inc.(+) or Dec.(-) from Base
Wildlife and fisheries administration and support\$	18,487	21,835	22,346	22,861	+515
FTE	495	568	568	588	+20
Wildlife habitat improvement\$	7,310	5,636	5,768	6,408	+640
(acres)	160,916	116,534	116,534	107,897	-8,637
(structures)	--	--	--	1,645	+1,645
FTE	196	147	147	165	+18
Resident fish habitat improvement\$	6,246	2,027	2,075	1,778	-297
(acres)	12,725	13,240	13,240	9,505	-3,735
(structures)	--	--	--	2,454	+2,454
FTE	167	53	53	46	-7
Endangered, threatened and sensitive species habitat improvement..\$	1,306	2,408	2,464	1,007	-1,457
(acres)	37,244	26,851	26,851	23,091	-3,760
(structures)	--	--	--	28	+28
FTE	35	63	63	26	-37
Anadromous fish habitat improvement\$	<u>2/</u> --	3,102	3,175	1,909	-1,266
(acres)	--	1,320	1,320	1,166	-154
(structure)	--	--	--	389	+389
FTE	--	81	81	49	-32
Total\$	33,349	35,008	35,828	33,963	-1,865
FTE	893	912	912	874	-38

1/ This is the first year that structures have been separated from acres of improvement.

2/ Not shown as a separate accomplishment in FY 1983.

General: The Forest Service manages over 191 million acres, all of which are habitat for some species of wildlife and fish. Half the big game and cold water fish habitat in the nation are on National Forest System lands and waters. Sportsmen, naturalists, bird watchers, photographers and other persons are provided the opportunity to enjoy these animals in their natural habitat. The National Forests have become increasingly important to wildlife and fish enthusiasts as more private lands are converted to other uses and the costs of hunting, fishing, and non-consumptive nature study use on private lands increase. The harvest of National Forest wildlife and fish resources have significant commercial values. Salmon produced from National Forest System waters are valued at over \$65 million annually. National Forests provided the American public with over 35 million wildlife and fish user days in 1983. These user days, which are in addition to those associated with recreational activities, were valued in excess of \$600 million.

National Forest System lands are managed to maintain self sustaining populations of all fish and wildlife and to improve habitats for certain species in public demand. Deer, elk, salmon, trout, and endangered species are among those desired by the American people. The improvement of habitat increases the capability of the land to produce these and other species. Other resource programs, such as timber management, are designed and conducted in ways that are beneficial to wildlife and fish habitat.

Forest Service personnel work closely with other Federal, State and local agencies in planning activities that affect fish and wildlife on National Forest System lands. Comprehensive plans displaying habitat improvement and maintenance needs to meet State objectives for wildlife and fish on National Forest System lands have been prepared jointly with State fish and wildlife departments.

Habitats for 65 Federally listed or proposed threatened or endangered species are being managed on National Forest System lands. In compliance with the Endangered Species Act of 1973, as amended, inventories, planned habitat protection and improvement programs, and the agency's share of recovery objectives (including land ownership adjustment) are conducted for these species in cooperation with the Fish and Wildlife Service and the individual States. The sensitive species program gives special management attention to certain plants and animals to prevent reductions in habitat that would cause them to become Federally listed as threatened or endangered.

First priority in the wildlife and fish program is given to support other resource activities such as timber sales to ensure that complementary wildlife benefits are achieved and adverse effects are minimized. Priority is given to habitat concerns for salmon and steelhead, waterfowl, threatened and endangered species, and other species either low in number or significantly affected by other resource management programs. Continued emphasis will be given to big game and resident fish upon public lands.

Wildlife and Fisheries Management and Support

Objectives:

1. To provide for wildlife and fish program management.
2. To provide wildlife and fisheries expertise in planning all activities that affect wildlife and fish and their habitats in compliance with policy and direction.
3. To facilitate attainment of targets for timber harvest, livestock grazing, outdoor recreation, and energy development in conjunction with accomplishing wildlife and fish management goals and objectives.
4. To provide wildlife and fisheries outputs (increased habitat capability and wildlife and fish user days) from resource activities such as timber sales.

Program description: Program management including administration, information collection for land and resource plans, wildlife and fish habitat relationships, monitoring, cooperation with States and other agencies and training is provided within this part of the program.

Wildlife and fisheries biologists work closely with other Forest Service personnel to minimize adverse impacts to wildlife and fish habitats, and to assist in meeting targets for timber harvest, livestock grazing, outdoor recreation, and energy development while concurrently providing wildlife and fish outputs. Specific activities include: determine mitigation and compensation needs for other resource projects; provide streamside protection needs for fish habitats; design timber sales to meet wildlife habitat objectives; design habitat improvement plans for on-site

improvement plans for on-site mitigation using timber sale receipts; and modification of livestock grazing plans to assure big game as well as livestock forage is provided and streamsides are protected. When the opportunities are available, habitat enhancement is also accomplished through support activities.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Wildlife and fisheries management and support	22,346	22,861	+515
FTE	568	588	+20

An increase of \$515,000 in management and support is planned. This amount adequately supports the 11.2 BBF timber program. Wildlife and fisheries support to timber is \$8,187,000, support to energy and minerals is \$1,410,000, and support to range management is \$864,000. The objective of this support is to design timber, minerals, and range activities to minimize impacts to fish and wildlife habitats. This increase will also help provide additional development and implementation efforts in wildlife and fish habitat coordination with the FY 1985 Forest Land Management planning and monitoring program.

A decrease of \$11,000 associated with improved efficiencies in administrative support activities and \$37,000 associated with a phased reduction of positions in grades GS/GM 11-15 is included in the totals of this program.

Object class information:

Salaries and benefits	+510
Other contractual services	+5
Total	+515

Wildlife Habitat Improvement

Objective: To maintain viable populations of wildlife species and increase populations of game and non-game species to meet objectives identified in the Resources Planning Act (RPA) and Forest Plans.

Program description: Activities are planned and conducted to increase the ability of habitat to provide the food, cover and reproductive requirements of wildlife. Deer, turkey, waterfowl and species which primarily occur on National Forest System lands such as elk, moose, mountain goats and bighorn sheep are given emphasis. Activities include prescribed burning to increase forage for deer and elk in Idaho; water developments for big game and upland game in Arizona, Utah, and New Mexico; seeding in the southeast and lake states for quail, deer and turkey; road closures to provide undisturbed habitat for bear and elk in Montana, Idaho, Oregon, and Washington; and wetland development in North Dakota and the Lake States for waterfowl. Maintenance of habitat improvements is included.

Program priorities are: 1) habitat improvement to offset losses from other resource activities, 2) riparian and wetlands habitat improvement, 3) big game habitat improvement, 4) management of other game and non-game of high public interest, 5) non-game species habitat improvement.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Wildlife habitat improvement	5,768	6,408	+640
FTE	147	165	+18

An increase of \$640,000 is proposed in direct wildlife habitat improvement. Accomplishments will include 107,897 acres and 1,645 structures. Emphasis will be on projects that mitigate the habitat effects of developmental activities, such as minerals and timber. A lower priority is given to those wildlife habitats that are not affected by other resource programs.

Object class information:

Salaries and benefits	+477
Travel	+24
Transportation of things	+10
Supplies, materials and equipment	+35
Other contractual services	+94
Total	+640

Resident Fish Habitat Improvement

Objective: To maintain viable populations of fish species and increase populations of species identified in the Resource Planning Act program (RPA) and Forest Plans.

Program description: Activities are planned and conducted to increase the ability of National Forest lakes and streams to support fish populations. The emphasis is to increase trout, bass and a variety of cold and warm water fish. Activities include the control of water quality to retain current fish populations and the placement of structures in lakes and streams to increase fish populations by improving the quality and amount of spawning and rearing habitat. This program supports and improves commercial, recreational and subsistence fishing. Maintenance of habitat improvement is included.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Resident fish			
habitat improvement....\$	2,075	1,778	-297
FTE	53	46	-7

A decrease of \$297,000 is proposed in direct resident fish habitat improvement. Accomplishments will include 9,505 acres and 2,454 structures. Projects that mitigate for other activities such as timber sales, minerals development, and livestock grazing will receive the highest priority. In the western states, projects that restore habitat damaged by winter storm/spring runoff will receive first priority.

Object class information:

Salaries and benefits	-186
Travel	-16
Transportation of things	-6
Supplies, materials and equipment.....	-24
Other contractual services	-65
Total	-297

Endangered, Threatened and Sensitive Species Habitat Improvement

Objective: To provide the Forest Service share towards recovery of endangered and threatened animals and plants and their habitat. To manage sensitive species of animals and plants to avoid declining populations, which could result in their becoming threatened or endangered.

Program description: The major emphasis of the program is to protect and improve habitats with a minimum of impact on other resource programs. Activities are planned to meet legally mandated recovery plan objectives for endangered, threatened, and sensitive animals and plants. Inventory to improve and monitor habitat and maintenance of habitat improvement, in accordance with plans for those species to provide protection, are important parts of program.

Activities include protection and management to recover the grizzly bear and woodland caribou; prescribed burning to develop breeding habitat for the Kirtland's warbler in Michigan; special timber management for spotted owls in California, Oregon, and Washington and the red-cockaded woodpecker in the southeast; and rehabilitation and protection of streams which contain threatened or endangered fish. The program also includes the identification of habitat for land acquisition.

Activities are prioritized: 1) to accomplish the requirements of the Endangered Species Act, 2) to prevent additional need for listing species, and 3) to change species status toward delisting.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Endangered, threatened and sensitive species habitat improvement ... \$	2,464	1,007	-1,457
FTE	63	26	-37

A decrease of \$1,457,000 is proposed in endangered, threatened and sensitive species habitat improvement and recovery efforts. Projects required to meet legal requirements of the Endangered Species Act will receive priority. A longer time frame is planned to accomplish recovery goals.

Object class information:

Salaries and benefits	-982
Travel	-69
Transportation of things	-27
Supplies, materials and equipment	-104
Other contractual services	-275
Total	-1,457

Anadromous Fish Habitat Improvement

Objective: To maintain viable populations of anadromous fish species and increase populations of species identified in the Resource Planning Act program (RPA) and Forest Plans.

Program description: Activities are planned and conducted to increase the ability of National Forest System streams to support anadromous fish populations. Activities include the control of water quality to retain current fish populations, the placement of structures in streams to increase fish populations by improving the quality and amount of spawning and rearing habitat, and maintenance of habitat improvement. This program supports and improves commercial, recreational, and subsistence fishing. Maintenance of habitat improvement is included.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Anadromous fish			
habitat improvement...\$	3,175	1,909	-1,266
FTE	81	49	-32

A decrease of \$1,266,000 is proposed in direct anadromous fish habitat improvement. Accomplishments will include 1,166 acres and 389 structures. Projects that mitigate for other activities such as timber sales, minerals development and livestock grazing will receive first priority. Other selected projects will be based on economic analyses and their contributions to the commercial fisheries.

Object class information:

Salaries and benefits	-849
Travel	-60
Transportation of things	-24
Supplies, materials and equipment	-92
Other contractual services	-241
Total	-1,266

Range Management

		1983	1984	1985	1985	(Inc. (+) or Dec. (-) from Base
		<u>Actual</u>	<u>Appropriation Enacted to Date</u>	<u>Base</u>	<u>Estimate</u>	
			(Dollars in thousands)			
Grazing program.....	\$	23,787	23,987	24,663	25,182	+519
Permitted Livestock grazing Use (MM AUMs)		9.8	9.8	9.8	9.8	-
	FTE	632	634	634	657	+23
Range forage and structural improvements.....	\$	2,250	2,300	2,364	359	-2,005
Range forage improve- ment (thousand acres)		165	110	110	50	-60
Range structural improvement (thous- and acres).....		1,863	1,337	1,337	921	-416
	FTE	60	60	60	9	-51
Wild free-roaming horses & burro management....	\$	584	290	299	179	-120
	FTE	16	8	8	5	-3
Noxious weed control....	\$	410	415	426	404	-22
(acres treated)		12,672	6,700	6,700	6,498	-202
	FTE	11	11	11	11	-
Total.....	\$	27,031	26,992	27,752	26,124	-1,628
	FTE	719	713	713	682	-31

Summary of funds available for the Range program:

	<u>1983 Actual</u>	<u>1984 Planned</u>	<u>1985 Estimated</u>
Range Management	\$27,031	26,992	26,124
Range Betterment Fund	\$ 5,378	4,028	3,665
Total	\$32,409	31,020	29,789

General: The Forest Service range program provides for sustained use by livestock and other herbivores; long-term requirements of wild horses and burros; and other ecosystem attributes such as wildlife habitat, soil and water quality, watershed protection, and additional forage for non-game species. The program emphasizes improvement and maintenance of resource productivity. It is guided by production efficiency analysis and the market value of forage. This program contributes to the quality of life for families and communities that are dependent on National Forest System range resources.

Grazing Program

Objectives:

1. Contribute to the economic well-being of rural residents by promoting stability of family ranches and farms in the areas of which National Forests and National Grasslands are a part.
2. Produce range forage on National Forest System lands which will contribute substantially toward meeting the nation's food needs.
3. Utilize National Forest System lands to demonstrate range management practices suitable for use on associated private lands.
4. Maintain the natural values of the range.
5. Promote cooperation and coordination among farmers, ranchers, government agencies, and others interested in making the most effective use of ranges in all ownership.

Program description: Livestock grazing affects 102 million acres of National Forest System land in 36 States. The 1977 estimates showed that 70 percent of the 54.4 million acres suitable for livestock grazing were in satisfactory ecological condition. (Ecological condition for the site is the degree of similarity between the present community and the potential natural community.)

<u>Ecological Condition</u>	<u>Acres of Suitable Range (millions)</u>
Good	13.1
Fair	25.0
Poor	14.2
Very Poor	<u>2.1</u>
Total	54.4

The estimate of ecological condition will be updated as Forest land management plans are developed and implemented; or, as better information is obtained.

Range unsuitable for use by livestock because of unstable soils, steep topography, or inherently low potential for forage production may be suitable habitat for many wildlife species.

In 1983, there were 10,417 grazing allotments upon which 14,211 ranchers were authorized to graze 1,700,000 cattle and horses and 1,600,000 sheep. Eighty-four percent of the cattle permittees have base herds of 1 to 300 head and are highly dependent upon National Forest System lands to complement livestock ranching operations on their privately-owned lands.

Revenue to the Federal treasury from the grazing program is expected to be approximately \$10.0 million in 1985. This value does not consider benefits such as wildlife habitat, soil and water quality, watershed protection, and additional forage for non-game species resulting from range management activities.

The grazing fees charged in the program are determined according to a formula established by the Public Rangelands Improvement Act. The formula is based on factors related to the profitability of ranching rather than the cost of providing the range resource. Thus the cost of the program has continued to increase even though grazing fees per animal unit month have been reduced for two years in a row.

In fiscal year 1983, improved management was started on 534 allotments. Improved management is started when one or more management actions such as fence construction, brush control, or livestock water developments prescribed in the allotment plan have been completed. In fiscal year 1983, 7,125 or 68 percent of the allotments, were under improved management and adequately maintained. Improved management is adequately maintained if the management actions prescribed in the allotment management plan are being carried out according to a schedule that will not permit regression in range condition. Comparable figures for the last five fiscal years are:

<u>Year</u>	<u>Total Allotments</u>	<u>Allotments With Improved Management Maintained</u>		<u>Number of Allotments With Improved Management Started This FY</u>
		<u>Number</u>	<u>Percent</u>	
1979	10,967	5,698	52	897
1980	10,754	6,378	59	1,236
1981	10,871	6,705	62	677
1982	11,070	6,886	62	705
1983	10,417	7,125	68	534

Increase for 1985:

		<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Grazing program.....	\$	24,663	25,182	+519
	FTE	634	657	+23

An increase of \$519,000 for range administration will maintain a 9.8 million animal unit month grazing program and provide the necessary range management input to the land management planning process. Emphasis will be for permittees to assume more responsibility for livestock grazing management activities, including maintenance and implementation of allotment management plans.

In 1985, most allotments with improved management will be maintained by carrying out prescribed actions in the allotment management plan according to a schedule that will not permit regression in range condition. Improved management will be started on a limited number of allotments. The 1985 budget will permit continued maintenance of those allotments with improved management and few new starts.

A decrease of \$9,000 associated with improved efficiencies in administrative support activities and \$32,000 associated with a reduction of positions in grades GS/GM 11-15 is included in this funding level.

Object class information:

Salary and benefits	+588
Travel	-7
Transportation of things	-3
Supplies, materials and equipment	-17
Other contractual services	-42
Total	+519

Range Forage and Structural Improvements

Objectives:

1. Improve the forage production capability of lands administered by the Forest Service to the extent benefits are commensurate with cost without impairing land productivity.
2. Maintain and improve soil and vegetation cover on National Forest System land to provide forage for livestock and other herbivores.
3. Identify and measure the relevant economic effects of range improvement programs, projects, and practices.

Program Description: Range improvement means any facility or treatment constructed or installed for the purpose of improving the range resource or the management of livestock. Improvements include both installation of structural improvements, such as fencing and water developments, and nonstructural improvements, such as cover manipulation or plant control to improve forage conditions. In addition to improving the livestock grazing program these improvements often provide additional benefits such as improved wildlife habitat, soil and water quality, watershed protection, and additional forage for non-game species.

Most of the capital investments on National Forests in the 16 western States will be accomplished through the Range Betterment Fund discussed under the Range Betterment Fund Appropriation. The Federal Land Policy and Management Act of 1976 ^{1/}, as amended by the Public Rangelands Improvement Act of 1978 ^{2/}, directs that 50 percent of the monies received by the United States as fees for grazing livestock of National Forest in the 16 contiguous western States be credited to a separate account in the Treasury and when appropriated be made available for on-the-ground range rehabilitation, protection, and improvements. Planning and administration costs, as directed by legislation, are paid from the Range Management appropriation or other benefiting functions.

Investments for range improvements on the National Grasslands will be financed through Conservation Practices authorized by Title III of the Bankhead-Jones Farm Tenant Act of 1937 ^{3/}.

Outputs and accomplishments are a combination of Range Management, Range Betterment Fund, and Conservation Practices.

^{1/} P.L. 94-579; 43 U.S.C. 1751.

^{2/} P.L. 95-514; 43 U.S.C. 1901-1908.

^{3/} P.L. 75-210; 77 U.S.C. 1010-1012.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Range forage and structural improvements .. \$	2,364	359	-2,005
FTE	60	9	-51

A decrease of \$2,005,000 will allow investments in cost effective situations that are necessary to sustain a viable range program. Investments for range improvements on National Forests in the 16 western States will be financed from the Range Betterment Fund and on National Grasslands through the Conservation Practices program. This program level will treat 971,000 acres in fiscal year 1985.

Object class information:

Salary and benefits	-1,304
Travel	-70
Transportation of things	-31
Supplies, materials and equipment	-172
Other contractual services	-428
Total	-2,005

Wild Free-Roaming Horses and Burros

Objective: Manage, protect, and control wild free-roaming horses and burros on National Forest System lands in a manner which maintains a thriving natural ecological balance on the territories they inhabit.

Program description: The Forest Service protects, manages, and controls about 1,700 wild horses and burros on National Forest System lands. All activities relating to wild horses and burros are coordinated with the Bureau of Land Management. Population levels desired to achieve management objectives are based on wild horse and burro forage and habitat requirements in coordination with wildlife, permitted livestock, and other uses. Excess animals are removed by authorized personnel. These horses are adopted by qualified people, who receive title after a year if their care proves satisfactory.

In 1983, 453 excess wild horses and burros were removed from territories. Scheduled removals for 1984 will bring most territory populations to a level that provides for preserving and maintaining a thriving natural ecological balance.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Wild free-roaming horses and burros..... \$	299	179	-120
FTE	8	5	-3

A decrease of \$120,000 will allow for removal of the natural increase to the existing wild horse and burro population.

Object class information:

Salary and benefits	-77
Travel	-4
Transportation of things	-2
Suplies, materials and equipment	-11
Other contractual services	-26
Total	-120

Noxious Farm Weed Control

Objectives:

1. Control noxious weeds on National Forest System lands including reimbursement to local county and State weed control authorities pursuant to the Carlson-Foley Act of 1968 (43 U.S.C. 1241-43).
2. Establish and maintain beneficial plant cover on National Forest System lands as a means of limiting the invasion of specified noxious weeds onto adjacent private lands.

Program description: Many States have enabling legislation authorizing counties or other jurisdictions to establish Weed Control Districts covering all or part of a county. Weed Control Districts are concerned with control of noxious weeds within the District regardless of land ownership. Appropriations for this activity will be used to control noxious weeds on National Forest System lands when the same species of noxious weeds are being controlled by the weed district on private lands (43 U.S.C. 1241-43).

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Noxious farm weed control ... \$	426	404	-22
FTE	11	11	--

A decrease of \$22,000 will allow for the treatment of areas of highest priority to prevent invasion or reinvasion on National Forest System lands by noxious farm weeds and in turn infestation of associated private agricultural lands. The Forest Service program will be coordinated with weed control district programs.

Object class information:

Supplies, materials and equipment	-12
Other contractual services	-10
Total	-22

Soil, Water and Air Management

		<u>1983</u> <u>Actual</u>	1984 <u>Appro-</u> <u>priation</u> (Dollars	1985 <u>Base</u> in thousands)	1985 <u>Estimate</u>	Inc.(+) or Dec.(-) <u>from Base</u>
Soil, water and air administration.....	\$	18,708	20,686	21,137	21,485	+348
	FTE	465	506	506	519	+13
Soil and water resource improvement.....	\$	2,355	2,386	2,438	2,087	-351
(thousand acres).....		8.9	4.0	4.0	3.4	-0.6
	FTE	58	58	58	50	-8
Soil and water resource inventories.....	\$	7,650	6,604	6,749	5,318	-1,431
(million acres).....		13.7	10.7	10.7	7.7	-3.0
	FTE	190	161	161	128	-33
Total.....	\$	28,713	29,676	30,324	28,890	-1,434
	FTE	713	725	725	697	-28

General: The overall objectives of the soil, water, and air program are: to achieve water of suitable quality and quantity to meet public needs and desires, to provide for the continued production of other resources through protection and enhancement of soil productivity, and to comply with requirements of the Clean Air Act of maintaining or enhancing air quality. Maintenance or improvement of soil, water and air values results in direct benefits to the range, recreation, timber, and fish and wildlife resources, and the public's enjoyment and use of these resources.

The program is divided into the following three activity areas:

1. Soil, water, and air administration.
2. Soil and water inventory.
3. Soil and water resource improvement.

Soil, Water and Air Administration

Objective: To utilize soil, water, and air expertise in meeting overall resource production and environmental goals.

Program description: The program for soil, water and air administration includes:

1. Application of soil, water, and air technology in the planning and implementation of resource management projects, including timber sales, recreation development, wildlife habitat improvement, range management, soil, water, and air resource improvement, and minerals and energy development.
2. Monitoring of soil, water and air resources to determine whether or not management goals for water and air quality and soil productivity are being met and to provide a basis for identifying more effective management practices.

3. Maintenance of existing soil and water improvements to ensure the continued effectiveness of these treatments.

4. Identification and quantification of water requirements for carrying out management responsibilities on the National Forest System, and securing water rights to meet these requirements. Filing fees for, or purchase, of water rights may be funded from benefiting programs, including soil and water programs.

5. Coordination and liaison with other agencies' soil, water and air resource development plans and projects on or directly affecting the National Forest System.

6. Development of plans for emergency rehabilitation of acres damaged by wildfires, floods, or other natural disasters.

7. Protection of air quality and monitoring Forest Service activities which may affect air quality.

8. Participation of soil, water, and air scientists in the preparation of Regional and Forest land and resource management plans.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Soil, water and air			
administration.....\$	21,137	21,485	+348
FTE	506	519	+13

An increase of \$348,000 will allow full funding for watershed support in the preparation of 11.2 billion board feet in timber sales and harvest of 11.2 billion board feet of timber from existing sales, as well as support to other resource programs.

Project planning support is for development of prescriptions to protect soil, water, and air values in the management of other resources. A total of \$9,743,000 is for project planning support, of which \$5,379,000 is for timber sale preparation and \$4,364,000 for other resources programs.

Project implementation support helps determine if planned results are actually achieved on the ground. A total of \$4,625,000 is for project implementation support, of which \$3,466,000 is for timber and \$1,159,000 for other resource programs.

A decrease of \$10,000 is associated with improved efficiencies in administrative support activities and \$30,000 is associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+300
Other contractual services ..	+48
Total	+348

Soil and Water Resource Improvement

Objective: Soil and water resource improvement projects are carried out to improve soil productivity and water quality, and provide for favorable conditions of water flow.

Program description: Soil and water improvement activities include erosion control structures, reshaping of gullied land, revegetation of denuded areas, and vegetation manipulation designed to increase water yield.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Soil and water resource improvement	2,438	2,087	-351
FTE	58	50	-8

A decrease of \$351,000 allows for treatment of 3,400 highest priority acres to accomplish stream channel stabilization, watershed condition enhancement, soil productivity increase, erosion reduction, and water quality improvement. Top priority repair work for damages incurred from 1983 flooding in Utah, Arizona, New Mexico, and California will be accomplished.

Object class information:

Salary and benefits	-222
Travel	-19
Transportation of things	-6
Supplies, materials and equipment	-28
Other contractual services	-76
Total	-351

Soil and Water Resource Inventories

Objective: To provide information concerning soil and water condition for use in resource management activities and land management planning. This information is used to meet the basic stewardship responsibilities of assuring long-term soil productivity and the continued supply of high quality water.

Program description: These inventories collect, describe, map, and interpret basic soil and water resource information required to manage the National Forest System under the principles of multiple use and sustained yield. Examples of information provided by the inventories are:

1. Soil productivity and reforestation potentials.
2. Water yield and quality including timing of flows.
3. Extent and location of soils having erosion and stability problems.

Soil inventories are conducted at two general levels of intensity. Low intensity inventories provide for information used in planning and broad resource allocation. All lands need to be inventoried at this intensity. High intensity inventories are needed to provide information for use in areas where management activities are planned. About half of the NFS lands will be covered by these inventories. Water resource inventories are done to meet specific planning needs. The intensity and occurrence of future water resource inventory needs are dependent on the specific projects being planned.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Soil and water resource inventories	\$ 6,749	5,318	-1,431
FTE	161	128	-33

The decrease of \$1,431,000 will allow completion of 7,700,000 acres of soil and water inventories. Emphasis will be on completion of low intensity soil inventories already started, and high priority high intensity soil and water inventories needed where resource management activity will occur.

Object class information:

Salary and benefits	-915
Travel	-74
Transportation of things	-24
Supplies, materials and equipment	-111
Other contractual services	-307
Total	-1,431

General Administration

		<u>1983</u> <u>Actual</u>	<u>1984</u> <u>Estimate</u>	<u>1985</u> <u>Base</u>	<u>1995</u> <u>Estimate</u>	<u>Inc. (+)</u> <u>or Dec. (-)</u> <u>from Base</u>
			(Dollars in thousands)			
Line Management	\$	40,709	40,443	41,914	41,454	-460
	FTE	914	906	906	896	-10
Program Support	\$	115,893	115,773	119,955	117,219	-2,736
	FTE	5,185	4,940	4,940	4,819	-121
Common Services	\$	104,313	101,394	100,938	105,709	+4,771
Total	\$	260,915	257,610	262,807	264,382	+1,575
	FTE	6,099	5,846	5,846	5,715	-131

General: General Administration consists of those managerial and support activities that cannot be readily identified with specific programs at the time they are planned. For financial planning, budgeting, and accounting purposes, these activities are financed by the General Administration line item. This avoids the need for assessing the other budget activities within National Forest System, Research, State and Private Forestry, Construction, and Land Acquisition for the cost of General Administration.

The activities included in the General Administration program do not directly produce outputs of goods or services. They provide essential managerial and technical support to those individuals and organizational components involved in the protection and management of the resources that produce goods and services. The Line Management, Program Support, and Common Services discussed in the following sections represent that share of the General Administration cost which contributes to the accomplishment of programs financed from Research, State and Private Forestry, National Forest System, Construction, and Land Acquisition appropriations.

Line Management

		<u>1983</u>	<u>1984</u>	<u>1985</u>
Washington Office	\$	608	627	627
	FTE	12	14	14
Field Offices	\$	40,101	39,816	40,827
	FTE	902	892	882
Total	\$	40,709	40,443	41,454
	FTE	914	906	896

Objective: To provide the direction and management of a variety of Forest Service programs to ensure that they are carried out efficiently, properly coordinated, and respond to national, regional and local needs.

Program description: All costs of the following line management positions including secretarial support, are attributed to General Administration:

1. Chief, Associate Chief, Deputy and Associate Deputy Chiefs of Administration and Programs and Legislation.
2. Regional Foresters and Deputies for Administration or Deputy Regional Foresters in Regions having only one primary Deputy.
3. Station Directors, Deputy Directors and the Assistant Directors for Planning and Applications and Support Services.
4. Area Director.
5. Forest Supervisors and Deputy Forest Supervisors.
6. District Rangers.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Line Management.....\$	41,914	41,454	-460
FTE	906	896	-10

The decrease of \$460,000 in line management is the result of a reduction of ten positions. The exact positions will be determined through evaluations resulting from the Federal Field Structure review.

Object class information:

Salary and benefits	-441
Travel.....	- 19
Total	-460

Program Support

<u>Washington Office</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Legislative Affairs\$	432	487	505
FTE	12	12	12
Program Development and Budget\$	1,271	1,344	1,395
FTE	31	30	30
RPA, Environmental Coordination and Policy Analysis\$	1,453	1,402	1,367
FTE	35	33	31
Personnel Management\$	2,124	2,118	2,129
FTE	67	63	61
Civil Rights\$	341	360	374
FTE	9	9	9
Volunteer and Hosted Employment Programs.....\$	180	206	214
FTE	3	4	4
Computer Science, Communication and Information Systems Management.....\$	3,059	2,836	2,864
FTE	82	73	71
Procurement and Property Management.....\$	898	902	900
FTE	27	26	25
Accounting, Fiscal Management and Law Enforcement.....\$	1,571	1,563	1,583
FTE	42	41	40
Management Analysis and Support.....\$	928	1,007	1,046
FTE	23	23	23
Public Information and Involvement.....\$	1,328	1,324	1,337
FTE	38	37	36
Other W.O. Support\$	276	281	292
FTE	<u>8</u>	<u>8</u>	<u>8</u>
Total Washington Office.....\$	13,861	13,830	14,006
FTE	377	359	350
Field Offices\$	102,032	101,943	103,213
FTE	<u>4,808</u>	<u>4,581</u>	<u>4,469</u>
Total Program Support.....\$	115,893	115,773	117,219
FTE	<u>5,185</u>	<u>4,940</u>	<u>4,819</u>

Objective: To provide the necessary support to efficiently and effectively carry out Forest Service programs and be responsive to requirements of the Executive Branch and Congress on policy and budget matters involving forestry.

Program description: Program support funding includes the salaries, travel, training and career development of program support staffs. The program support staffs include program planning/development and budget, RPA coordination, information offices, personnel management, administrative services, administrative management, fiscal and accounting, civil rights, and other general purpose support staff.

As outlined in the narrative section concerning field offices support services, not all of the Washington Office staff activities described as General Administration exist at the field level or if they do exist they are more readily identified with the benefiting program and are funded as such.

Legislative Affairs

Legislative Affairs is staffed by resource professionals and clerical support with the primary responsibility of analyzing proposed legislation and providing information to assist the Executive Branch and the Congress in the consideration and enactment of needed legislation.

In carrying out this responsibility the Legislative Affairs personnel:

1. Prepare proposals for new or amended legislation as part of the Department's Legislative Program. (20-25 proposals per year)
2. Prepare reports stating the Department of Agriculture's position on proposed legislation in response to requests from congressional committees or from the Office of Management and Budget. (80-90 legislative reports per year)
3. Prepare testimony and supporting briefing materials for Departmental witnesses in preparation for congressional hearings. Also prepares followup information that may be requested by the committees. (50-60 hearings per year).
4. Respond to telephone requests from congressional offices for information on Forest Service activities. (2,000 to 3,000 calls per year)
5. Keep Forest Service personnel informed on the status of legislation and assists in understanding the legislative process by providing information and training.

Program Development and Budget

Program Development and Budget is responsible for the process that transforms Forest Service authorities, missions and goals into specific program objectives, outputs, targets, and workforce and funding requirements. The budget reflects the on-the-ground needs and provides the basis for presenting and justifying Forest Service programs to the Department, Office of Management and Budget, and Congress. Once the Appropriation Bill is signed, work accomplishments are tracked periodically in relation to funded program objectives and output targets. At the end of the year, an evaluation of work completed and dollars obligated is completed and presented to management. These evaluations are used as a basis for future budget development.

Various tasks are required to accomplish this process.

1. Program Development and Analysis - The budget process starts with field units developing budget proposals based on annual planning direction, the RPA Program, and local plans. Based on cost/effective analysis and overall national needs, various budget alternatives are developed at each organizational level. These are then used in developing alternative National proposals for the Forest Service.
2. Budget Documents and Presentation - The Forest Service budget proposals are negotiated with the Secretary and the Office of Management and Budget and incorporated in the President's annual budget. Detailed explanatory notes justifying the budget proposals are prepared for use by the Congressional Appropriation Committees. Witness statements, briefing and display material are prepared for appropriation committee hearings. Additional information is developed in response to requests from the staff and members of the Appropriation Committees, as well as requests from other Legislative members and staff dealing with such issues as budget reconciliation.
3. Budget Execution - Funds, outputs, targets, and personnel ceilings are allocated to field units in line with the direction contained in the Appropriation Act and Committee reports. Periodically, financial needs are projected, and requests are submitted to the Department and OMB for apportionments and outlay ceilings.

Justifications supporting reprogramming requests are prepared for review and approval by the Congressional Appropriation Committees. Emergency funding needs are handled as they occur during the year.

Close coordination is required with sponsor agencies transferring funds to the Forest Service to carry on certain programs such as Job Corps, Watershed Planning and Flood Prevention.

4. Accountability and Control - On a periodic basis the Program Development and Budget staff conduct reviews of field units program planning and budget activities. Necessary training for field units is also conducted by this staff.

On a quarterly basis, Program Development and Budget staff analyze program target accomplishments in relation to plans and expenditure of funds. Results are presented to line officers with recommendation for followup action.

In addition, Program Development and Budget staff provide various automated systems support to all Forest Service users of the Program Development and Budgeting and RPA processes.

5. Annual Report to Congress - As required by the Forest and Range and Renewable Resource Planning Act of 1974, an annual report is prepared to analyze Forest Service accomplishments and resource conditions in relation to the Recommended RPA Program. The report is submitted to Congress for their information and use in carrying out their oversight responsibilities.

RPA, Environmental Coordination and Policy Analysis

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) requires the Secretary of Agriculture to prepare an overall assessment of the Nation's renewable resources situation every 10 years. It includes projections of the future demand and supply of timber and other forest-related resources. In response to the assessment, the Act also requires the Secretary to prepare a long range RPA Program every 5 years. Based on analysis of several alternatives, cost effectiveness, and public comments, the Secretary selects a Recommended RPA Program which includes an output and funding level for Forest Service programs that is responsive to the future needs of the American people. The Act requires coordination with other Federal and State agencies and organizations to avoid duplication of effort. The Program becomes the basis for future annual budget proposals. The first RPA Assessment and Program were completed in 1975, the second assessment in 1979, and the second Program in 1980. A supplement to the 1979 RPA Assessment was published in 1984 to reflect significant changes that have occurred since 1979 and to help guide preparation of the 1985 RPA Program.

The following major tasks will be completed in fiscal year 1985:

1. Complete the Final 1985 RPA Program and Environmental Impact Statement to accompany this Program. These documents will go through a final administrative review in early FY 1985 and be sent to Congress with the President's Statement of Policy in January 1985.
2. Begin supply and demand analyses for the 1989 RPA Assessment. This will include an update of the basic assumptions on population and economic activity used in formulating resource supply and demand projections, and incorporation of changes in the expected supply and demand situation for renewable resources. New data will be collected and new analysis techniques will be used.
3. Critique the process used for preparation of the 1985 RPA Program and develop the 1990 process. This will involve outside groups as well as Forest Service staff. This will include an indepth look at data used for analysis, time schedules, involvement of outside groups, and preparation of documents.
4. Continue ongoing discussion and reviews with congressional staffs, other agencies, national interest groups, and other public and private entities, so that these groups and individuals continue to understand and be a part of the RPA process.

Environmental Coordination

At the national level, the Environmental Coordination staff:

1. Provides national direction to field units and the Washington Office on the implementation of NEPA.
2. Coordinates with EPA, CEQ, and other Federal agencies on environmental matters affecting natural resources and the National Forest System.
3. Advises the Chief on national policies to implement NEPA and provides technical assistance to the Washington Office and field offices in carrying out NEPA responsibilities.
4. Provides training to Washington Office and field personnel to assure their understanding of NEPA and NEPA procedures, CEQ regulations, and Forest Service policy.

5. Reviews 100-120 environmental assessments and environmental impact statements (EIS) involving national and/or controversial issues for their adequacy in meeting the intent of the law, regulations, and procedures.
6. Coordinates the review within the Forest Service of approximately 150 EIS's prepared by other Federal agencies involving projects affecting Forest Service programs or National Forest System lands.
7. Files EIS's with the Environmental Protection Agency (EPA) which are the responsibility of the Chief and the Secretary of Agriculture, and publishes notices of availability of environmental documents and/or hearings relative to EIS's which have been made available for public review.
8. Serves as liaison with CEQ and EPA to ensure that national policies and directives of Forest Service are consistent with Government-wide policies.

Policy Analysis

The Policy Analysis (PA) staff conducts indepth analyses and studies of high priority policy issues. The general approach is to collect pertinent data, do an objective analysis, and develop and evaluate alternatives for consideration by policy makers. Their work assignments consist of the following:

1. Requests from USDA, OMB, and Congress. Each year the Forest Service receives requests from the Department, OMB, and Congress to do special analyses and studies on policy issues that are of national and/or international concern. Three examples include examining opportunities to increase user fees on a cost effective basis, examining a process for analyzing various fire budget levels, and reviewing the effects of timber sales on world markets.
2. The need for New or Revised Policy. Forest Service policies frequently need to be reviewed and changed to keep them in tune with changing conditions and responsive to people's needs. As policies are questioned, high priority policy issues are assigned to the PA staff to develop alternatives needed to support decisions on policy matters. Examples include the cutting of firewood from National Forest System lands, developing economic analyses procedures, and examining the need for preroad prior to timber sales.
3. Program Evaluation. Forest Service ongoing programs are periodically evaluated to determine if they are meeting public needs and expectations in an economically efficient manner and providing the public benefits desired. Priority program evaluations are assigned to PA where detailed economic, efficiency, and public need analyses are required. The results are used to determine whether program changes are needed. Examples include the use of fire retardants and effects of minerals developments on National Forest management.

During 1985, policy and program evaluations will be directed toward determining priorities and identifying additional opportunities to increase efficiency and reduce costs.

Personnel Management

The Personnel Management (PM) program is involved in recruiting, developing, and maintaining an effective Forest Service work force for the accomplishment of Forest Service programs. These activities include staffing, classification, pay administration, employee development, employee relations, labor-management relations, performance evaluations, awards, insurance, retirement, attendance, and safety and health. The personnel management program is decentralized to Region, Station, National Forest, Ranger District, and research project headquarters.

The Forest Service employs a large seasonal and temporary work force of about 20,000 in addition to a permanent work force of some 35,000. Also, the personnel management program includes responsibilities in areas not normally attributed to personnel. These include: health and safety; Equal Employment Opportunity-Civil Rights; support to human resource programs such as Job Corps, Older Americans, Youth Conservation Corps, Volunteers in the National Forests with over 50,000 people per year; and payroll for all employees including Job Corps enrollees.

Selected Workload Factors - Personnel Management

<u>Selected Workload Factor</u>	<u>Unit of Measure</u>	<u>FY 1983 Actual</u>	<u>FY 1984 Estimate</u>	<u>FY 1985 Estimate</u>
Personnel actions:				
Permanent employees	No.	52,500	52,000	51,000
Temporary employees	No.	40,000	37,000	35,000
Internal placement actions	No.	17,000	17,000	16,000
External recruitment actions	No.	1,200	1,200	1,100
Reduction-in-force actions	No.	38	40	50
Early retirement approvals	No.	1	3	6
Special employment program actions	No.	4,347	5,000	5,000
Employee awards	No.	5,000	6,000	6,000
Training	Hrs.	1,400,000	1,400,000	1,400,000
Classification actions	No.	13,000	13,000	12,000
Grievance/adverse actions	No.	149	160	160
EEO complaints processed	No.	70	75	75
T&A reports processed	No.	1,170,000	1,100,000	1,100,000

Although certain personnel activities are expected to decline (e.g., external recruitment) by 1985, overall workload is not expected to decline because of the impacts of cutback management. More time is now spent, for example, placing employees, handling reduction-in-force, meeting equal employment opportunity targets to retain minorities and women, ensuring the meeting of uniform guideline requirements, and implementing performance rating systems.

The personnel management program also includes labor relations activities. Labor relations personnel work includes contacts with fourteen American Federation of Government Employees' bargaining units and one National Federation of Federal Employees' unit which combines eighty local units. Fifteen thousand employees are represented nationwide, and negotiations and hearings are conducted annually.

Civil Rights

The Civil Rights program in the Forest Service supports the programs and activities that by law require attention to equal employment and equal access for all citizens. Civil rights concerns are a part of every major activity in the Forest Service.

The Equal Access Program covers Forest Service activities directly benefiting the public. The purpose of this activity is to ensure that everyone have access to Forest Service programs, and that services are provided without discrimination. Examples of Forest Service programs identified under this activity are: assistance to minority landowners, minority grazing participation, minority recreation use, cooperative protection, human resource programs, research grants and contracting opportunities.

During the 1983 program year, these activities assured the following participation rates for minorities and women: assistance to minority landowners (total of 4,095 assists); minority grazing (total minority grazing permittees - 8,747 involving 76,000 animal unit months usage); Job Corp (70% combined minority/women participation); Senior Community Service Employment Program (20% minority, 29% women); Minority Prime Contracting (\$20.2 million); women-owned small business (\$16.2 million). The agency also conducts over 2,000 compliance reviews of recipients under its Title VI authority.

The Equal Employment Opportunity Program of the Forest Service:

- Provides equal opportunity in employment for all persons to compete on the basis of merit;
- Promotes full realization of employment opportunity through a continuing Affirmative Action Program.

The Agency's innovative approaches are represented largely by the four noncompetitive hiring authorities: cooperative education worker-trainee, vietnam readjustment authority (VRA) and handicap authority. Over 1,600 Forest Service employees are working under these authorities. The agency also has 225 employees in Upward Mobility positions. The majority of these employees are in technician or administrative jobs.

The major laws and regulations associated with Forest Service programs which require civil rights attention are: The Civil Rights Act of 1964, as amended by Public Law 92-261 of 1972; the National Environmental Policy Act of 1969 as amended, the American Indian Religious Freedom Act, Public Law 95-341; the National Forest Management Act 1976, Public Law 94-588; and Sections 503 and 504 of the Rehabilitation Act of 1973.

Volunteers and Hosted Employment Programs

The Forest Service provides opportunities for many individuals to participate in its activities through the Volunteers in the National Forests and Hosted employment programs. The overall administration of these programs is financed by General Administration.

These programs provide enrollees with opportunities to accomplish conservation work in fields such as land, water, recreation, wildlife management, emergencies, timber stand improvement, and erosion control. Most of the work performed by these groups or individuals helps the Forest Service with the backlog of conservation work that would not otherwise be done.

As a by-product, these efforts provide retired persons opportunities to become involved in meaningful productive activities and utilizes their skills and talents. Working adults enjoy a change of scene in their leisure hours and satisfaction from making voluntary contributions to the conservation of the Nation's natural resources. Many of the younger enrollees are provided an opportunity for their first work experience.

The Volunteers in the National Forests program does not provide a salary to its participants. However, it allows unlimited opportunities for interested persons to contribute their talents, knowledge and expertise toward the accomplishment of Forest Service activities and at the same time gain valuable work experience. More and more individuals with special skills are applying. They require careful and selective placement. Also becoming increasingly popular are linkages with community organizations which result in volunteer groups taking on special projects such as adopt-a-trail projects. A Special Volunteers program has been developed entitled "Touch America Project" (TAP). This program enrolled 1,000 fourteen to seventeen year old youths in fiscal year 1983 doing conservation projects on public lands.

During FY 1983, 44,212 persons from all walks of life, participated in the Volunteers program. Approximately 30 percent were women and 10 percent were minorities. They contributed 1,700 person-years of work valued at \$21 million. This contribution was valuable to the Forest Service in helping to alleviate the backlog of work in reforestation, timber stand improvement, fish and wildlife habitat, recreation, and other activities necessary to maintain our natural resource base.

Hosted employment programs are those programs where the Forest Service serves as a host agency for cooperative programs administered by State and local governments. Hosted human resource programs include College Work Study, Work Incentive Program, Vocational Work Study, and programs formerly authorized under CETA and now implemented under direct grants to States.

During 1983, 6,678 persons participated in these cooperative programs; approximately 26 percent were women and 33 percent were minorities. Program participants accomplished 908 person-years of conservation work valued at more than \$11.2 million.

Computer Science, Communications and Information Systems Management

The Forest Service is implementing an intensive information resource management (IRM) program. This IRM program integrates much of the latest technological advancements and information systems management activities needed to support the Administration's goals and its targets for the Agency. These tools enable the Agency to:

1. Achieve the increased productivity necessary to meet a continuously expanding workload without increasing staff; and,
2. Improve service and response to the public.

The IRM program emphasis for the current planning period is focused on two major areas; first, implementing the Forest Level Information Processing System (FLIPS); and second, implementing the results of a comprehensive National Systems Management Review. The review assessed the appropriateness of the current management of systems activities and is recommending improvements which support the Forest Service mission and program.

Other major activities include:

1. A comprehensive review of the Forest Service directives system;
2. The establishment of distributed information processing (FLIPS is the primary tool for this effort);
3. Improvement of telecommunications services;
4. Improved data base management and management information systems; and
5. Improved forms, reports, and records management.

Taken together, these major efforts will assist agency personnel in: (1) capturing, organizing, and accessing the myriad of data bases and programs needed to manage National Forest System resources; (2) conducting forestry research; and, (3) providing forestry assistance to State and local governments.

The activities supported represent a broad range of Forest Service programs and administrative functions. These include the RPA Assessment and Program, Regional planning, forest land and resources management plans and budget development, execution and financial management. Policies for the management of computers, communications, and information are in conformance with the provisions of the Paperwork Reduction Act of 1980; the Brooks Act; and regulations of OMB, GSA and the Secretary of Agriculture.

In order to reduce the impact that the decrease in staffing has had on the Agency and to maintain the outputs that are required to reach the program goals, the expansion and use of automatic data processing and telecommunications facilities must be an integral part of Agency plans. In 1980, the National Facilities Needs Analysis (NFNA) was developed, describing the information processing requirements for the National Forest System's programs for the period 1983-86. The NFNA together with Regional plans form the framework for the implementation of distributed processing which will support all program activities.

Other activities include the identification of information needs, development of inventories of information sources and planning for information systems; development of standards for data and information; coordination, analysis, editing, publishing and distribution of directives; forms and reports management; creation, use and disposition of records; security of data and information and costing and developing information budgets.

Software development and acquisition are managed to assure that cost effective, state-of-the-art methods and standards are applied. Policies, guidelines and standards are provided to aid designers and developers of software to ensure efficient design and programming and to make error detection easier and more effective. The management of communications (voice/radio/data communications) is necessary to provide support to Forest Service programs for the protection and utilization of National Forest System and other public lands and as a transmission link for ADP activities. Effective radio communications networks are essential to ensure the efficient and safe operation of fire prevention and suppression activities on National Forest System lands and in other emergency situations requiring the protection of life and property.

Procurement and Property Management

The procurement and property management functions of the Forest Service provide direct support to program managers for the acquisition, utilization and disposition of a wide variety of goods and services. These functions provide program managers with needed goods and services within the framework of laws, regulations and sound business practices.

The procurement and property management functions of the Forest Service are delegated to field units to the greatest degree practicable. This places procurement and property managers in more direct contact with program managers, enabling better control of these activities and quicker response to problem situations. The Forest Service commitment to the Small Business program is enhanced by the ability of local procurement and property managers to locate and encourage small businesses to participate in Government contracts. Leases for space are more easily acquired and administered by local personnel and problems more readily resolved.

There are presently over 140 locations at which contract actions take place and in excess of 750 locations at which small purchase, accountability, and/or management of personal and real property is exercised.

The Forest Service acquires and manages a large number of different items, ranging from general office supplies to sophisticated data processing and scientific equipment. The agency's role as a world leader in the development of new techniques and equipment for cost effective fire fighting and insect and disease control is supported by procurement and property managers who acquire the items and services needed. Research in methods of more effective utilization of wood and wood products is closely supported by arranging for the purchase, loan, lease or transfer of needed equipment and arrangements for services of qualified individuals.

This program is designed to provide support at the program level, thereby allowing the program manager to concentrate on program accomplishment rather than support activities. Procurement and property managers are equipped and located to provide immediate supply management support for forest fires, floods, and other emergencies involving the National Forests.

The principal statute governing the procurement and property management function in the Forest Service is the Federal Property and Administrative Services Act of 1949. There are a number of other laws which affect the Forest Service procurement and property management program. These generally enhance the basic law to meet particular Forest Service requirements or, in a few cases, exempt the Forest Service from application of the Federal Property and Administrative Services Act. Application of the laws, their implementing regulations and supplemental regulations of GSA and the Department of Agriculture, require a coordinated and integrated program extending to all levels of the Forest Service.

Selected Workload Factors - Procurement and Property Management

<u>Selected Workload Factor</u>	<u>FY 1983</u> <u>Actual</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>
	(Dollars in thousands)		
I. Procurement Management:			
1. Small Purchase			
Actions Processed\$	164,700	170,000	170,000
Number	492,485	500,000	500,000
2. Contract Actions			
Processed\$	348,000	350,000	350,000
Number	10,301	10,000	10,000
3. Total Procurement			
Actions Processed\$	513,000	520,000	520,000
Number	502,786	510,000	510,000
II. Property Management			
1. Property Inventory			
Items Maintained\$	575,000	600,000	700,000
Number	500,000	660,000	700,000
2. Acquisition of			
Leased Space\$	10,000	12,000	12,400
Number	675	800	825
3. Administration of			
GSA Space			
Occupied			
Standard Level			
User Charge.....\$	19,900	25,700	25,900
Million Square Feet	3.38	3.35	3.39
4. Field Level Real Property			
Utilization Surveys (Number)	-	-	50
National Real Property			
Utilization Surveys (Number)	4	4	4

Accounting, Fiscal Management and Law Enforcement

This activity includes fiscal management, accounting systems, internal control and review, cash and debt management, claims administration, external program accounting, and law enforcement functions. The functions are carried out as required by the Budget and Accounting Procedures Act of 1950, the National Forest Management Act of 1976, the Prompt Payments Act of 1982, and various other laws and regulations under Titles 7, 16, 18, 31, and 41 of the U.S.C.

Internal accounting and financial reports are provided to approximately 200 national forests, research stations, and State and Private area offices. External accounting and financial reports are furnished to OMB, Treasury, and approximately 20 other government agencies and departmental offices.

In 1983, the Forest Service operated cash and obligations control procedures for 34 separate receipt accounts, 155 administrative appropriations, including prior year appropriations. In addition, an internal accounting file system, and payment computation process, both historical and current, is maintained to support payments to States and counties of 25 percent of all receipts derived from the National Forests and Grasslands.

Fiscal policies and procedures are formulated for all Forest Service programs to assure compliance with legal and other Agency requirements (GAO, Treasury, OMB). Through direction and review, this activity assures proper use of the many available appropriations and trust funds, proper distribution of receipts and provides direction and oversight of the fiscal and administrative aspects of financial assistance programs. The Forest Service processed and awarded 1,350 financial assistance documents during 1983.

Accounting system internal control and review protect the Government against fraud, waste, and abuse from both internal and external sources in the fiscal and accounting activities Service-wide. A comprehensive review system is in place to ascertain compliance with applicable laws, regulations, and policies. Emphasis is placed on those fiscal and accounting functions with high susceptibility to fraud, waste, and abuse. Fiscal and Accounting Management program reviews are made on a minimum 4-year cycle. An average of 325 such reviews are made each year. In addition, activity reviews of fiscal and accounting functions are conducted where a need for more in-depth analysis is identified for specific functions. It is estimated that at least 50 activity reviews are made annually.

External accounting, auditing, and financial and cost analysis encompass a number of accounting and review functions performed to give managers at all levels information requested and needed to carryout their respective responsibilities.

Cash and debt management activities are necessary to improve the timing of payments and collection of revenues. Collections increased from \$730 million in 1982 to \$966 million in 1983; and are expected to continue to increase during 1984 and 1985. Aggressive debt collection procedures minimize overdue accounts and have increased interest receipts from \$250,000 in FY 1982 to \$1,453,000 in FY 1983.

The law enforcement program is designed to protect natural resources, Federal property on the National Forests, and Forest Service employees. This requires the maintenance and enforcement of regulations (36 CFR 261) and enforcement of elements of the Federal Criminal Code (16 U.S.C. and 18 U.S.C.). The program also includes investigation of internal matters referred to the agency by the Inspector General. In 1983 the Forest Service conducted 390 internal investigations as requested by the Inspector General. The number of internal investigations is expected to remain at this level in FY 1984 and 1985.

The current value of timber, archeological artifacts, and the economic losses associated with wildland arson require increased emphasis to reduce economic losses and social impacts associated with criminal activity. The use of National Forest System (NFS) lands to illegally cultivate cannabis is of particular concern. Preliminary data for FY 1983 indicates a small reduction in the number of illicit cannabis operations on the National Forest System. As the prevention program implemented in FY 1983 continues, it is predicted that further reductions will occur in FY 1984 and 1985. Reduction of on-site social and resource impacts will lag behind decreases in marijuana production.

Forest Service law enforcement responsibility requires coordination with other Federal law enforcement agencies including the Federal Bureau of Investigation, Federal Marshall's Service, Secret Service, and others. Liaison with the U.S. Attorneys and the Federal Magistrates Division are other important activities. Liaison and coordination with 43 State law enforcement agencies is essential to assure a reasonable level of protection for National Forest visitors and their property. Annually, more than 2 million violations of Federal law or regulation occur on NFS lands. An estimated 25,000 violation notices are issued, with an average \$35 forfeiture of collateral. At the present time, 102 special agents and 3,500 other personnel carry out the Forest Service law enforcement duties.

When identifiable, the benefiting budget line items bear the cost of the day-to-day work of preventing violations and dealing with violators. The multifunctional coordination activities and criminal investigations conducted by criminal investigators are financed from General Administration.

The following is an actual FY 1983 Service-wide summary of additional activities which create and/or require Fiscal and Accounting Management and law enforcement expertise. These are expected to remain relatively constant into FY 1984 and 1985.

<u>Types of Transaction or Category of work</u>	<u>Number</u>
Grants and agreements	3,500
State indirect cost rate negotiations	13
Fuelwood permits	450,000
Timber sales	235,600
Permits, leases, and licenses	115,500
Operator cost verifications	150
Recreation permit and gross fixed asset reviews	125
Travel authorizations issued	27,250
Billings issued	500,000
Internal and external accounting reports	
Number of reports	81
Number of users	36,300
Law enforcement violation notices issued	25,000

Management Analysis and Support

This activity encompasses program management, management improvement, work force management, and organization and management systems. These functions are essential to the administration of an organization as large, complex, and decentralized as the Forest Service.

The management improvement program involves conducting and coordinating national studies to improve Forest Service efficiency and effectiveness. This includes studies in work simplification, work measurement, methods and procedures, and benefit/cost analysis in the area of natural resource management and administration. These program performance and/or cost reduction studies are done in accordance with OMB Circular A-117. Added emphasis has been placed on cost reduction efforts and the development and maintenance of productivity measurement. This activity also includes evaluation and transfer of new management technology and skills throughout the agency.

The organization, position management and work force management systems activity provides for efficient and orderly changes in organizational unit structures and staffing patterns service-wide, to respond to new initiatives and changes in program emphasis, and to improve organizational performance. This activity also meets the provisions of OMB Circular A-64. These systems cover over 30,500 permanent, full time and 11,300 other than full-time equivalent (FTE) positions located within 9 National Forest System (NFS) regional offices, 122 forest supervisor offices, 652 ranger districts, 8 forest and range experiment stations, the Forest Products Laboratory, 69 research field locations, and one area office for State and Private Forestry (S&PF) cooperative programs. In fiscal year 1983, this activity supported the reorganization of several major offices to streamline operations and enhance productivity. Actions included reorganizing the Regional Office in Ogden, Utah; consolidating 2 Ranger Districts with other existing Districts; and consolidating Research and National Forest System administrative support organizations at 3 geographic locations to create shared service units.

Leadership is provided in work force management planning to assure that the most efficient and effective ways of doing business are employed in the accomplishment of agency goals. This includes a lead role in development and coordination of Reform '88 actions to improve management efficiency, and action planning and support for implementing the President's Private Sector Survey on Cost Control and the Federal Field Structure Review.

Evaluation, reporting, and improvement of management controls is the vital function directed at preventing fraud, waste, and abuse, and improving the efficiency and effectiveness of Forest Service programs. This involves the conduct of internal reviews, coordination with the General Accounting Office and Office of Inspector General in their conduct of audits, and followup action on review and audit report recommendations. The management control system meets the requirements of the Federal Manager's Financial Integrity Act and OMB Circular A-123.

Program management is the administration of functions such as: administering the rental rate process to provide 4,546 Government-furnished rental quarters to house 3,000 permanent and 16,000 temporary employees each year in accordance with 5 U.S.C. 5911, and OMB Circular A-45; furnishing technical support in office systems analysis, design and coordination; and assuring commercial or industrial products and services are obtained at lowest costs as required by OMB Circular A-76; and managing the Forest Service Uniform program. In addition, program management includes the administration of the advisory committee management program required by the Federal Advisory Committee Act, P.L. 92-463; coordination of the national meetings management program in compliance with OMB Circular A-124; coordination of Federal financial assistance and direct Federal development programs in compliance with E.O. 12372; and the Catalog of Federal Domestic Assistance under OMB Circular A-89. Also included is the publication of the National Organizational Directory and Management Notes; coordination with Federal Executive Boards and the preservation and documentation of historical data, and administration of the Employee Suggestion Program.

Public Information and Involvement

These activities form the means by which the Forest Service and the public carry on a continuing discussion of agency plans, policies, and actions related to natural resources. The agency provides information on how the government is managing the Nation's natural resources. It provides opportunities for the public to learn about the wise use of these natural resources, and it provides a process by which the public can respond to proposed Forest Service policies, plans, and actions. This two-way flow of public information and public response is required by several laws designed to give the citizens an effective voice in the running of the government. Most notable of these laws are the Department of Agriculture Organic Act, the National Environmental Policy Act, and the Forest and Rangeland Renewable Resources Planning Act as amended by the National Forest Management Act.

Current information activities provide details to the public on programs, policies, and actions related to Forest Service's management of the National Forest System and conduct of cooperative forestry and forestry research. These activities are carried out through the mass media, public forums and informed Forest Service and Departmental personnel. About 60 percent of this effort is directed toward providing information to press, radio, TV, and motion picture outlets for broad dissemination to the public. This activity also involves the preparation of speeches for delivery by Forest Service and Department leaders that are rendered to a broad spectrum of key audiences locally, nationally and internationally. Since virtually every Forest Service employee and a number of Department people communicate frequently with the public about the agency's programs at one time or another, an estimated 20 percent of current information activity is devoted to internal communications.

The publications management activity provides national direction and coordination of Forest Service publishing and printing programs, and provides or procures editing, printing/duplicating, and distribution of all publications, forms, posters, and administrative documents originating in the Forest Service. The outputs of this activity are primarily publications that (1) report and describe scientific and technical information generated by Research and State and Private Forestry to meet the needs of forest managers, forest products processors, woodlot owners, and the scientific community; (2) inform the public of National Forest System planning activities and involve interested citizens and groups in the decisionmaking process; (3) inform forest visitors and users about availability of services and recreation opportunities, personally and environmentally safe ways to enjoy facilities and natural resources, regulations and use restrictions; and (4) provide general information on how the agency manages, protects, and utilizes the forest and range resource.

The goal of the public involvement and education work functions is to achieve better agency decisions and understanding through the exchange of information with the public. Activities in these areas include the use of a variety of techniques to create a dialogue between the agency and its public related to upcoming decisions involving land use planning, natural resource research program formulation, environmentally sensitive projects, and other agency actions such as resource management protection and use. These efforts are in support of the National Environmental Policy Act which requires full opportunity for the public to be involved in the various stages of the decisionmaking process on environmentally sensitive issues and the Forest and Rangeland Renewable Resources Planning Act, as amended, that requires public participation in long range land management planning.

The agency also achieves its public involvement and education goal through the Woodsy Owl Environmental Campaign. This educational public service program helps natural resource managers accomplish their objectives with savings in both personnel and funds. Woodsy Owl asks for public cooperation to reduce solid waste, vandalism, and other adverse impacts on the lands.

Audio-visual activities play a vital role in supporting the public information and involvement programs of the Forest Service and the Department. The importance of this activity is shown by communications research which indicates that about 80 percent of all learning is accomplished through visual aids.

Other WO Support Services

The International Forestry Staff provides General Administrative support by acting as liaison with international organizations, foreign governments, other Federal departments and agencies, and non-government groups for coordination of international forestry programs and activities. In addition, the staff monitors and manages all Forest Service foreign travel, arranges for Forest Service participation in international meetings, represents the Chief and top staff in inter-agency meetings dealing with foreign forestry affairs, serves as liaison and principal contact point with foreign countries through their embassies and consulates, and cooperates with numerous associations and societies on international forestry matters.

State and Private Forestry has the responsibility for coordination and liaison in defense and emergency operations. The Forest Service is responsible for pre-emergency preparedness and emergency operations on Federal and non-Federal land for prevention and control of fires; determination of damage to forested areas resulting from enemy attack; emergency protection, management, and utilization of National Forest timber, range, water and related resources; emergency production, availability, and utilization of timber and timber products; determining and reporting resources needed to carry out these activities; and defense preparedness and emergency operations research.

Field Offices (Program Support)

Most of the General Administration activities previously described in the Washington Office section are also performed and funded as General Administration in the region, station and area headquarters and to a lesser extent at the supervisor's headquarters, research field locations, and ranger district headquarters. There are some exceptions such as RPA (except the overall coordination) and environmental coordination. These duties, when performed at locations other than the Washington Office, can be readily identified with the benefiting activity. Also, within some of the administrative groups there are activities that can be readily identified with the benefiting program and funded accordingly. Examples are timber sale accounting, timber cost collection, and concessionaire audits. These activities are performed by the Fiscal and Accounting Management group but are financed from the benefiting activity. Conversely, there may be positions located in areas other than the typical administrative units that perform General Administration duties in that they cannot be readily identified with the benefiting program and are properly funded from all funds available to the unit. Duties of this nature that exceed 20% of the individuals workload are properly funded from General Administration. An example is a forest fire staff that has safety and health responsibilities exceeding 20% of that individuals workload.

Typical regional office administrative groups that are financed in whole or partially from General Administration are:

1. Planning and Budget
2. Office of Information
3. Civil Rights
4. Administrative Services (includes procurement and contracting)
5. Fiscal and Accounting Management
6. Law Enforcement (coordination only)
7. Human Resource Programs (coordination of volunteers and Host programs)
8. Personnel Management
9. Management Systems

Typical research station headquarters General Administration activities are:

1. Planning and Application
2. Administrative Management
3. Computer Systems
4. Information Services
5. Administrative Services
6. Budget and Finance
7. Personnel Management
8. Contracting

General Administration activities at a forest supervisor's office are:

1. Personnel
2. Budget and Finance
3. Administrative Services
4. Computer Services (portion)
5. Procurement and Contracting

All ranger districts have a minimum of one clerk funded by General Administration. Larger districts may have an administrative assistant, one or two clerks, and a procurement specialist.

Most research field locations have business management personnel that are funded from General Administration. However, in some cases, such as singular funded field locations, business management support services can be readily identified with the benefiting activity and can be charged direct to that research program.

Job Corps Centers are examples where all business management activities are funded by the benefiting program (Job Corps) and not General Administration.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Program support.....\$	119,955	117,219	-2,736
FTE	4,940	4,819	-121

The estimate for FY 1985 General Administration Program Support was determined by what is needed to support Forest Service programs. The Washington Office will take the same proportionate reduction in personnel as the field units.

The decrease of \$2,736,000 and 121 FTEs will be accomplished through improved efficiencies in administrative support activities such as field unit support sharing and the elimination of printing plants and travel offices. Also included is a decrease of \$67,000 associated with improved efficiencies in administrative support activities and \$298,000 associated with a phased reduction of positions in grades GS/GM 11-15.

During FY 1983, the Pacific Northwest (R-6) and Intermountain (R-4) Regions began providing general administration support services for the Pacific Northwest and Intermountain Station Headquarters respectively. Also, the Rocky Mountain Station began providing support services for the Arapaho-Roosevelt National Forests of Region 2. Additional opportunity for shared services are being explored, including reducing some services.

The FTE reductions are estimated to be in the following areas:

Contracting	-15
Personnel Management	-21
Fiscal and Accounting Management	-14
Budget	-13
Clerical	-42
Information and Public Affairs	-5
Secretarial Support	-3
Computing	-8
	<u>-121</u>

Object class information:

Salary and benefits	-2,655
Travel.....	-81
Total.....	-2,736

Common Services

	<u>1983</u>	<u>1984</u>	<u>1985</u>
Rents, communications and utilities ..\$	41,932	41,897	43,992
Contractual services\$	11,875	11,027	10,527
Equipment and supplies\$	19,250	16,669	16,169
Office of Workers' Compensation Program\$	9,899	10,241	11,012
National Finance Center.....\$	16,870	18,765	20,883
Other USDA services\$	<u>4,487</u>	<u>2,795</u>	<u>3,126</u>
Total, Common Services.....\$	104,313	101,394	105,709

Objective: To finance those services that are common to General Administration or that otherwise meet the definition of General Administration in that they cannot be identified with a specific program.

Program description:

Rents and utilities - These are space rentals and utilities for facilities owned or leased by the Forest Service. General Administration is responsible for that portion that supports general administrative activities. Total office space owned or leased by the Forest Service is a little over 4 million square feet. In addition to the space owned or leased by the Forest Service, a little over 3 million square feet of space is covered by the Standard Level User Charge (SLUC), for which payment is made to GSA. Only that portion of the total space that supports general administrative activities is charged to General Administration.

Communication - Communication services funded in Common Services include the transmission of messages and data from place to place, e.g., contractual charges for radio and wireless telegraph service, and telephone and telegraph services, switchboard and service charges, telephone installation costs, and rental of teletype equipment.

Included in the communications item is postage and mail. The agency policy is to classify mail at the lowest rate possible, consistent with the mailer's need and to manage mail in a manner which will provide the most effective, economical and reliable mail service. The payment for postage and mail is based on the exact amount of postage as recorded by a metered-mail system.

Contractual services: This includes obligations for budget object class 25 (other services) except those that are otherwise specifically identified such as the National Finance Center. Included in this category are items such as publication of notices, tuition, operation of facilities or other service contracts, temporary and nontemporary storage of household goods. Other items included in this category are office equipment repair, maintenance contracts, ADP on-line retrieval services, and ADP data processing services and supplies.

Equipment and supplies - Most of the general office supplies are charged to General Administration since it would be difficult to determine the benefiting function.

Office of Workers' Compensation Program - This program is administered by the Office of Workers' Compensation Program (OWCP) in the Department of Labor. It provides compensation benefits to civilian employees of the United States for disability due to personal injury sustained while in the performance of duty or for employment related disease. Benefits are also provided to dependents if the injury or disease causes the employee's death.

National Finance Center - The National Finance Center (NFC) is a Department of Agriculture service center and provides essential payment and accounting services for agencies within the Department. The Forest Service obtains the services of complete administrative payment processing, payroll computation, payment, and related reports, plus required accounting records and financial reports. Utilizing revolving fund financing, NFC establishes use rates for Agency charges to recover costs and operate on a non-profit basis as closely as possible. The budget for NFC is included and justified in the USDA and Related Agencies Appropriation Act.

Other USDA services: This covers the miscellaneous services provided for the Forest Service by the Department of Agriculture. Examples are Growth Capital, Video Film Center, various personnel programs, and the Design Center. These costs are distributed to the various agencies within the Department based on the volume of business generated by each agency.

Increase for 1985:

	1985 Base	1985 Estimate	Increase
Common Services.....	\$ 100,938	105,709	+4,771

Certain Common Services continue to increase at a rate much higher than the normal inflation rate. An example is Office of Workers' Compensation Program (OWCP) which is expected to increase by \$771,000 over FY 1984 or an increase of 7.5 percent. This reflects continued increases in the cost of the injury and illness compensation programs due to accelerating medical and hospital expenses. The National Finance Center's (NFC) operating costs are projected to increase by 11 percent over FY 1984 expenses. The Forest Service share is 53 percent of the total NFC costs.

Portions of the rents, communications, and utilities item continue to increase at a much higher rate than the normal inflation rate. Examples are: FTS intercity and Telenet which are expected to increase by 15 percent and 44 percent respectively over the FY 1984 estimate.

Due to the uncontrollability of these items, a large portion of the GA budget must be committed to Common Services, thereby reducing our flexibility in Line Management and Program Support.

Object class information:

Rents, communications, and utilities.....	+2,551
Supplies, materials and equipment	-500
Workers Compensation.....	+771
Other contractual services.....	+1,949
Total	+4,771

YOUTH CONSERVATION CORPS

		<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc. (+) or Dec. (-) from Base</u>
(Dollars in thousands)						
Youth Conservation Corps	\$	3,400	--	--	--	--
	FTE	37	--	--	--	--

General: A total of \$10,000,000 was appropriated, \$3,400,000 to the Forest Service - National Forest System, \$3,300,000 to the USDI Park Service, and \$3,300,000 to the USDI-Fish and Wildlife Service.

Objective: To provide gainful summer employment for young men and women aged 15 through 18 in conservation work and offer a broad variety of educational experiences to them as they learn ways to improve the quality and productivity of land, air, and water.

Program description: The Act of August 13, 1970 (84 Stat. 794) (16 U.S.C. 1701-06), as amended, authorizes the Youth Conservation Corps (YCC) Program on Federal lands.

The primary purposes of the program are to:

- (1) Accomplish needed conservation works on public lands.
- (2) Provide gainful employment for 15-18 year-old males and females from all segments of society.
- (3) Develop an understanding and appreciation in participating youth of the Nation's natural environment and heritage.

During 1983, the Forest Service operated a \$3,400,000 YCC program with National Forest System funds (as authorized by the 1983 Appropriation Act) serving 2,426 young people. For 1984, about 2,200 young people are expected to participate in a \$3,300,000 program. Funding will be provided by benefiting Forest Service programs. See the Human Resource Programs section of this justification material for additional information on accomplishments for this and other employment programs.

A YCC program is not proposed for fiscal year 1985.

NATIONAL FOREST SYSTEM
PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1106-0-1-302				
Program by activities:				
Direct program:				
	1. Land and resource protection	340,332	326,065	335,245
	2. Renewable resource management and utilization	391,870	401,948	424,513
	3. General administration	250,470	261,236	263,896
	4. Youth conservation corps	3,155	--	--
	Total direct program	985,827	989,249	1,023,654
	Reimbursable program	70,081	44,200	51,000
10.00	Total obligations	1,055,908	1,033,449	1,074,654
Financing:				
Offsetting collections from:				
11.00	Federal funds	-15,886	-29,200	-33,700
13.00	Trust fund	-34,301	--	--
14.00	Non-federal sources	-19,894	-15,000	-17,300
21.40	Unobligated balance available, start of year	-7,698	-103,490	-12,516
24.40	Unobligated balance available, end of year	103,490	12,516	25,821
25.00	Unobligated balance lapsing	15,658	--	--
39.00	Budget authority	1,097,277	898,275	1,036,959
Budget authority:				
40.00	Appropriation	1,097,277	888,506	1,036,959
Transfers in for:				
46.10	Wage-board pay raises	--	508	--
46.20	Civilian pay raises	--	9,261	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	985,827	989,249	1,023,654
72.40	Obligated balance, start of year	110,743	110,953	133,484
74.40	Obligated balance, end of year	-110,953	-133,484	-170,808
90.00	Outlays, excluding pay raise supplemental	985,617	957,339	985,940
91.10	Outlays from wage-board pay raise supple- mental	--	488	20
91.20	Outlays from civilian pay raise supple- mental	--	8,891	370

NATIONAL FOREST SYSTEM
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code: 12-1106-0-1-302		1983 actual	1984 est.	1985 est.
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	448,676	458,618	487,724
11.3	Other than full-time permanent	86,219	86,245	93,322
11.5	Other personnel compensation	21,526	21,927	22,833
11.8	Special personal services payments ..	4,236	4,315	4,493
11.9	Total personnel compensation	560,657	571,105	608,372
Personnel benefits:				
12.1	Civilian	73,316	74,682	79,555
13.0	Benefits for former personnel	7,422	7,301	7,777
21.0	Travel and transportation of persons	21,702	21,160	20,840
22.0	Transportation of things	8,250	8,116	7,993
23.1	Standard level user charges	13,726	18,582	17,012
23.2	Communications, utilities, and other rent	46,218	44,034	44,091
24.0	Printing and reproduction	4,101	4,035	3,974
25.0	Other services	164,494	158,011	158,216
26.0	Supplies and materials	41,661	39,692	33,286
31.0	Equipment	34,204	32,588	32,631
32.0	Lands and structures	7,540	7,329	7,218
33.0	Investments and loans	-8	-8	-8
41.0	Grants, subsidies, and contributions	31	31	31
42.0	Insurance claims and indemnities	508	499	491
44.0	Refunds	321	315	310
99.0	Subtotal direct obligations	984,053	987,472	1,021,789
99.0	Reimbursable obligations	70,081	44,200	51,000

NATIONAL FOREST SYSTEM
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1106-0-1-302				
ALLOCATION ACCOUNTS				
Personnel compensation:				
11.1	Full-time permanent	281	261	274
11.3	Other than full-time permanent	768	783	822
11.5	Other personnel compensation	5	4	4
11.9	Total personnel compensation	1,054	1,048	1,100
Personnel benefits:				
12.1	Civilian	111	110	115
21.0	Travel and transportation of persons	360	372	390
22.0	Transportation of things	75	77	81
23.2	Communications, utilities, and other rent	7	7	8
25.0	Other services	38	39	41
26.0	Supplies and materials	49	45	47
31.0	Equipment	16	14	15
32.0	Lands and structures	63	65	68
99.0	Subtotal direct obligations	1,773	1,777	1,865
99.9	Total obligations	1,055,908	1,033,449	1,074,654
Obligations are distributed as follows:				
	National Forest System	1,054,135	1,031,672	1,072,789
	Bureau of Land Management	1,596	1,652	1,734
	Federal Highway Administration	177	125	131
	Total	1,055,908	1,033,449	1,074,654

NATIONAL FOREST SYSTEM

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-1106-0-1-302			
Direct:			
Total number of permanent positions	20,334	20,059	20,474
Total compensable workyears:			
Full-time equivalent employment	23,903	23,473	23,946
Full-time equivalent of overtime			
and holiday hours	804	802	805
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800
Reimbursable:			
Total number of permanent positions	1,712	1,609	1,662
Total compensable workyears:			
Full-time equivalent employment	2,013	1,855	1,929
Full-time equivalent of overtime			
and holiday hours	41	39	40
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	--	--	--
Allocation Accounts:			
Total number of permanent positions	11	11	11
Total compensable workyears:			
Full-time equivalent employment	58	58	58
Full-time equivalent of overtime			
and holiday hours	2	2	2
Average ES salary	--	--	--
Average GS grade	11.24	10.19	10.19
Average GS salary	25,550	23,730	23,730
Average salary of ungraded positions....	--	--	--

FOREST MANAGEMENT, PROTECTION, AND UTILIZATION
Program and Financing (in thousands of dollars)

Identification code: 12-1100-0-1-302		1983 actual	1984 est.	1985 est.
Program by activities:				
10.00	Total obligations (object class 32.0)...	--	3	--
Financing:				
Offsetting collections from:				
14.00	Non-federal sources	-7,894	--	--
17.00	Recovery of prior year obligations	-491	--	--
21.40	Unobligated balance available, start of year	-379	-3	--
24.40	Unobligated balance available, end of year	3	--	--
25.00	Unobligated balance lapsing	8,762	--	--
39.00	Budget authority	--	--	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	-7,894	3	--
72.40	Obligated balance available, start of year	16,663	7,271	--
74.40	Obligated balance available, end of year	-7,271	--	--
78.00	Adjustment in expired accounts	-491	--	--
90.00	Outlays	1,007	7,274	--

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NATIONAL FOREST SYSTEM

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
11-1106-1-1-302				
Program by activities:				
Financing:				
10.00	Total obligations (object class 25.0)...	--	34,301	--
40.00	Budget authority (appropriation)	--	34,301	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	--	34,301	--
90.00	Outlays	--	34,301	--

YOUTH CONSERVATION CORPS

Program and Financing (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1125-0-1-302				
Program by activities:				
10.00	Total obligations	--	--	--
Financing:				
Offsetting collections from:				
14.00	Non-federal sources	-36	--	--
21.40	Unobligated balance available, start of year	-25	-59	--
24.40	Unobligated balance available, end of year	59	--	--
25.00	Unobligated balance lapsing	2	59	--
39.00	Budget authority	--	--	--
Budget authority:				
40.00	Appropriation	10,000	--	--
41.00	Transferred to other accounts	-10,000	--	--
43.00	Appropriation (adjusted)	--	--	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	-36	--	--
72.10	Receivables in excess of obligations, start of year	--	-105	--
72.40	Obligated balance available, start of year	13	--	--
74.10	Receivables in excess of obligations, end of year	105	--	--
90.00	Outlays	82	-105	--

CONSTRUCTION

	1983 Actual	1984 Appropriation Enacted to Date	1985 RPA	1985 Base	1985 Estimate	Inc. (+) or Dec. (-) from 1984	Inc. (+) or Dec. (-) from Base
	(Dollars in thousands)						
Construction of facilities ..\$	51,461	23,867	118,129	--	16,750	-7,117	+16,750
FTE	177	141		--	79	-62	79
Road Construction\$	245,169	222,675	325,551	--	231,884	+9,209	+231,884
FTE	4,394	4,060		--	4,122	+62	4,122
Trail Construction\$	4,936	5,182	16,420	--	5,264	+82	+5,264
FTE	90	95		--	95	--	95
Chugach Natives Inc.....\$	9,000	--	--	--	--	--	--
FTE	0						
Total\$	310,566	251,724	460,100	--	253,898	+2,174	+253,898
FTE	4,661	4,296		--	4,296	--	4,296

Appropriation Summary Statement

The construction program provides for the acquisition, restoration, replacement, construction and improvement of buildings, utility systems, dams, recreation facilities, roads, bridges, trails, and other physical facilities, including land acquisition for administrative sites when it is a part of the total project costs. Development projects, other than those which are an integral part of the operating and research programs, are not included in this appropriation, but are financed from the research appropriation. Minor projects needed for fire, administrative or other general purpose sites that are estimated to cost less than \$50,000 may be financed from regular benefiting program funds.

Authorities:

Act of June 4, 1897, as amended (16 U.S.C. 473)
Construction for Administration, Protection and Management.
(05-96) 12-1103 302 SAGR HAGR

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 81-478 Granger-Thye Act of April 24, 1950 (16 U.S.C. 571c)
Section 1

Erect buildings, lookout towers and other structures on non-Federal land where a long term right of use is secured.

Such sums as are needed. No expiration date specified.

P.L. 88-657, Act of October 13, 1964 (National Forest Roads and Trails Systems Act 16 U.S.C. 535); P.L. 94-588, (National Forest Management Act 16 U.S.C. 472a) and P.L. 93-378 (Forest and Rangeland Renewable Resources Planning Act as amended, 16 U.S.C. 1601.)
Section 4 (2)

Timber roads constructed by timber purchasers
(05-96)12-2263 302 SAGR HAGR

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a)

Section 1

Erection and leasing of buildings, structures and land from non-federal sources.

Such sums as are appropriated. No expiration date.

P.L. 90-543, National Trails System Act, October 2, 1968, as amended by P.L. 98-11
Section 7 and 10

Land acquisition, exchange, donation.

Such sums as appropriated by Congress. No expiration date.

P.L. 95-307 The Forest and Rangeland Renewable Resources Research Act of 1978, as amended, (16 U.S.C. 1643(a)) Section 3

Construction

Such sums as are appropriated by Congress. No expiration date specified.

P.L. 94-148, Act of December 12, 1975, (16 U.S.C. 565a-1 through a-3)

Joint construction via Cooperative Agreements

Such sums as are appropriated. No expiration date.

P.L. 95-619, National Energy Conservation Policy Act, (42 U.S.C. 8259)

Section 549

Retrofit of facilities for energy conservation.

Such sums as are appropriated by Congress. Expires January 1, 1990.

Construction of Facilities

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date (Dollars</u>	<u>1985 Base in thousands)</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Research					
construction.....\$	454	422	--	1,670	+1,670
FTE	3	3	--	8	+8
Construction for fire, administrative and other purposes.....\$	16,207	14,845	--	13,149	+13,149
FTE	78	69	--	61	+61
Recreation Use Areas					
construction.....\$	34,800	8,600	--	1,931	+1,931
FTE	96	69	--	10	+10
Total.....\$	51,461	23,867	--	16,750	+16,750
FTE	177	141	--	79	+79

General: This program consists of construction, replacement, and improvement of buildings and other facilities to support Research, State and Private Forestry, and National Forest System activities. Portable structures such as trailers and modular units are considered personal property and are not included in Construction of Facilities.

Research Construction

Objective: To provide improvement and construction of laboratory and other facilities needed to carry out the Forest Service research mission.

Program description: Forest Service scientists are responsible for developing technology that will improve productivity of the Nation's forest and rangelands. To accomplish this task, scientists need physical facilities and equipment which provide the maximum safety possible, commensurate with the type of research being performed.

Research progress reasonably expected to accrue from adequate research facilities will increase productivity in forestry, provide for resource development and use, and conserve and protect our resource base. At the same time, adequate facilities allow greater depth in research investigations, eliminate unsafe working conditions, and provide advantages of consolidation (e.g., critical mass of expertise, etc.). Facilities are strategically located to permit Federal scientists to interact with university scientists and to assure a comprehensive, coordinated attack on the problems.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Research Construction.....\$	--	1,670	+1,670
FTE	--	8	+8

The proposed projects are included in Exhibit 1. The fiscal year 1985 program will emphasize safety and health. This includes providing facilities for proper use and storage of hazardous chemicals and flammables, installing fire alarm systems, replacing unsafe electrical wiring, and eliminating other health and safety hazards.

The funding includes a decrease of \$2,000 associated with improved efficiencies in administrative support activities.

Object class information:

Salary	+ 152
Supplies, materials and equipment	+ 98
Land and structures	+ 647
Other contractual services;.....	+ 773
Total	+1,670

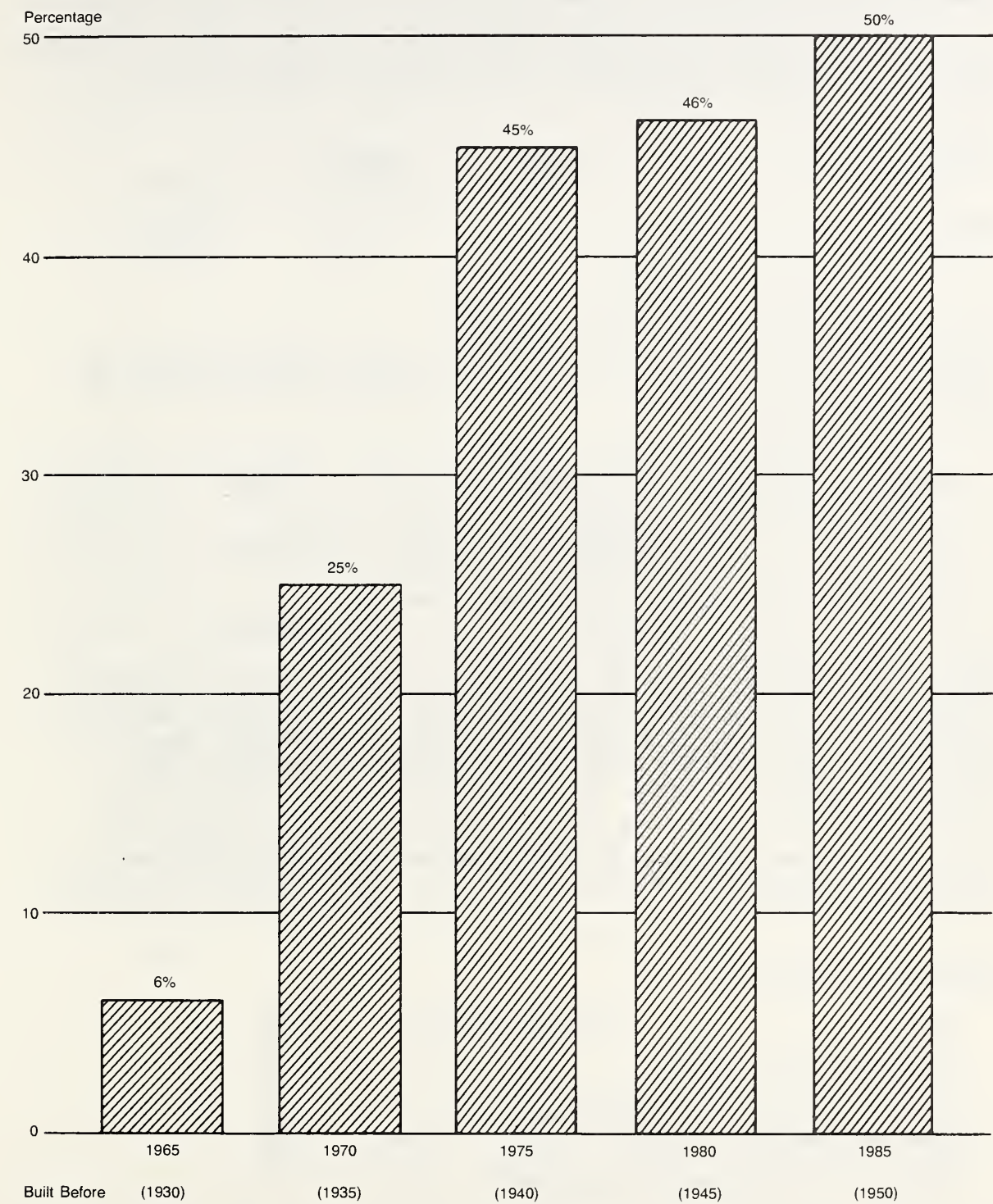
Construction for Fire, Administrative and Other Purposes

Objective: Provide for replacement, construction and improvements of offices, employee housing, service and storage buildings, nursery buildings and utility systems, airports and heliports, water, sanitation and electrical systems; acquisition and improvement of administrative sites; and other construction projects (except recreation facilities) in support of National Forest System and State and Private Forestry programs.

Program description: The fiscal year 1985 program will emphasize replacement and rehabilitation of facilities. This emphasis is needed since 46 percent of the buildings and utility systems were constructed prior to 1940. About 50 percent have exceeded their structural and functional design life as shown in the graph on the following page, and are no longer economical to maintain. Specific areas of emphasis will be:

1. Health and Safety - Provide safe working conditions and living environments for employees and users of National Forest facilities. This includes meeting drinking water and waste water disposal standards, providing facilities for proper use and storage of hazardous chemicals and flammables, replacing unsafe electrical wiring and eliminating or reducing other health and safety hazards.
2. Planning and Design - Provide for advanced facilities planning and preliminary designs for projects that could be expected to be constructed within the next three years. This will ensure adequate lead time for site selection, detailed design, and development of cost estimates and contract specifications to help ensure that facilities are constructed on schedule and within the cost estimates. This will reduce the need to reprogram funds among projects.
3. Program Support Facilities - Replace and construct facilities to furnish working and living space, and other facilities to achieve resource output and protection targets. This support includes the following program areas:
 - a. Fire Management - Provide facilities for fire suppression and presuppression activities, such as lookouts, air attack facilities, and fire management centers.
 - b. Nursery and Tree Improvement Building Construction - Construct, replace and enlarge nursery and tree improvement buildings needed to meet tree seedling production levels for the 1980's. Includes nursery and tree improvement buildings (greenhouses, headhouses, storage buildings, offices, packing sheds, etc.) and support systems which are integral parts of those buildings (sewer, electrical, and water systems), including underground irrigation systems.
 - c. Administrative Facilities - Provide service and storage facilities, offices, employee housing, and related administrative site improvements based upon carefully considered alternatives to meet program needs. Construction and replacement of housing will be limited to providing family housing in isolated locations and seasonal housing in areas where recruitment of seasonal employees is hampered by lack of or the extreme cost of private housing. Family housing will not be constructed in locations where such housing can be rented or purchased by the employee in the private sector at a reasonable cost. Efforts will be continued to replace older facilities where maintenance is uneconomical.

Percent of FA&O Buildings Exceeding 35 Years*



*Average Design Life

d. Equal Opportunity Support - Provide facilities which will further the equal opportunity goals in the Forest Service Affirmative Action Plan. Retrofit present facilities to provide separate and/or equal facilities for women and men, and access by the handicapped where appropriate.

e. Energy Conservation - Retrofit existing facilities to improve their energy efficiency as required by the National Energy Conservation Policy Act, P.L. 95-619.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
FA&O Construction.....\$	--	13,149	+13,149
FTE	--	61	+61

The proposed projects are included in Exhibit 2.

The list of projects includes two residences which would exceed the \$65,000 cost limitation specified in the FY 1984 Interior and Related Agencies Appropriations Act. These projects are:

<u>Region</u>	<u>State</u>	<u>Project</u>	<u>Amount</u>
Region 1	Idaho	Powell Ranger District Triplex	\$230,000
Region 10	Alaska	Thorne Bay Ranger District Duplex	\$266,000

Both of these projects would exceed the dwelling limitation of \$65,000 because of: (1) inflation since this limitation was established (1979), (2) remoteness of the building sites, (3) severity of climatic conditions, and (4) shortness of the construction season. Both will be less than 1,300 sq. ft. per unit. They will be basic, space efficient units, but, considering the remoteness and severity of climatic conditions, must be well-constructed of durable, energy efficient materials.

The funding includes a decrease of \$2,000 associated with improved efficiencies in administrative support and \$16,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries	+1,161
Travel	+ 126
Transportation of things.....	+ 58
Printing and reproduction.....	+ 20
Supplies, materials and equipment	+ 748
Land and structures	+4,988
Other contractual services	+5,957
Communication, utilities and other rent	+ 91
Total	+13,149

Recreation Construction

Objective: To repair and rehabilitate existing recreation facilities to meet health and safety standards, protect soil and water resources, improve economic efficiency and increase fee receipts. To improve recreation experiences by providing appropriate recreational opportunities in the forest setting.

Program description: The emphasis of the overall recreation program is away from recreation facilities toward more primitive settings. Less than one-quarter of the recreation use occurring on the National Forests is at Forest Service operated facilities. However, to meet public demand, provide for the health and safety of forest visitors, maintain basic resources of soil and water quality, preserve past capital investment, convert utility systems to reduce maintenance costs, and qualify certain facilities for user fees, it is necessary to construct new facilities, reconstruct or rehabilitate existing recreation improvements.

Of the total program, \$1,658,000 is for replacement and rehabilitation of existing facilities, and \$273,000 is for new facilities.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Recreation Construction.....\$	--	1,931	+1,931
FTE	--	10	+10

The proposed projects are included in Exhibit 3. Construction of recreation improvements will emphasize the rehabilitation of water and sanitation systems. This program is responsive to the priorities identified in the 1980 GAO audit of National Forest System recreation facilities. Outlays to bring substandard facilities up to the standards required in the Land and Water Conservation Fund Act will permit charging user fees at many of these sites.

The funding includes a decrease of \$3,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	+ 190
Travel	+ 18
Transportation of things	+ 8
Rents, communication and utilities	+ 13
Printing and reproduction	+ 3
Supplies, materials and equipment	+ 108
Lands and structures	+ 724
Other contractual services	+ 867
Total	+1,931

Road Construction

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date (Dollars in thousands)</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Road Construction \$	245,169	222,675	--	231,884	+231,884
Miles	2,016	1,195	--	1,406	+1,406
FTE	4,394	4,060	--	4,122	+4,122

Objective: To provide a transportation network at the lowest overall cost of construction, operation, and maintenance; and to develop this transportation network in an orderly manner so as to accommodate the annual resource outputs identified in the budget.

Program description: Several types of road programs, financed in a variety of ways, serve the resources of the National Forest System: Forest Highways, Forest Road Program (FRP), Purchaser Credit Program (PCP), and Purchaser Election Program (PEP).

Forest Highways: Forest Highways are public roads, maintained by State or local governments, that provide the link between the Federal Aid Highway System and the Forest Development Roads. Forest Highways serve both forest resource needs and the local communities adjacent to forest lands. These roads are financed through the Federal Highway Act from the trust fund and administered by the Federal Highway Administration (FHWA). Priorities for project selection are set by agreement among the States, Forest Service, and FHWA. The financing level has remained constant at \$33 million per year from 1960 through fiscal year 1982. The Highway Revenue Act of 1982 increased the authorization to \$50 million through 1986. These roads are traditionally 2-lane capacity facilities, built to State and Federal standards.

Forest Roads - The Forest Service transportation system consists of the following types of roads:

Forest Arterial roads provide service to large land areas and usually connect with public highways or other arterial roads to form a network of primary travel routes. Location and standards for these roads are often determined by the need for travel mobility and efficiency rather than serving a specific resource.

Forest Collector roads serve smaller land areas and are usually connected to a forest arterial or public highway. These roads collect traffic from forest local roads. Location and standards are determined by long-term resource needs and travel efficiency.

Forest Local roads connect terminal facilities with forest collector roads, forest arterial roads or public highways. Location and standards are usually determined by the specific resource needs the roads will serve.

All three types of roads may be constructed under any of the three programs discussed below, Forest Road Program, Purchaser Credit Program or Purchaser Election Program. Usually only forest collector or forest local roads are constructed under the PCP or PEP.

Purchaser Credit Program (PCP)

The Purchaser Credit Program (PCP) is one of three programs for construction of Forest Development Roads. Timber sale contracts usually require the purchaser to construct any system roads that will be necessary for the removal of the timber purchased. The purchaser deducts the costs of construction of the road from payments to the U.S. Treasury for the timber. Thus, there are no appropriations for PCP roads. Instead, the amount of timber sales revenue received by the U.S. Treasury is reduced by an amount equal to the cost of PCP roads.

Construction under the PCP is accounted for outside of the Forest Service budget, but there is a ceiling amount authorized by Congress for each fiscal year. All costs in support of the Purchaser Credit Program, such as survey, design and construction engineering are included in the Forest Road Program financing. Since funding for the PCP reflects only construction and reconstruction costs, it is directly related to the timber sales program for the current year.

Purchaser Election Program (PEP)

Under the Purchaser Election Program (PEP), small business timber purchasers in all States, except Alaska, may elect at the time the timber sale contract is awarded to have the Forest Service finance and construct any roads required by the sale provided the cost of road construction exceeds \$20,000. Funding levels are determined by the volume of timber to be offered in the current year and the projected trend of purchasers to elect to have the Forest Service construct roads. As with the Purchaser Credit Program, funds in the Purchaser Election Program can only be used for construction and reconstruction. Funds for survey, design, and construction engineering come from the Forest Road Program.

Forest Road Program (FRP)

The Forest Road Program (FRP) provides the financing for multipurpose road systems on or adjacent to National Forests.

Since the Purchaser Credit Program (PCP) and Purchaser Election Program (PEP) are constrained to financing construction or reconstruction only, all planning, management, and project engineering costs to support these programs are programmed out of the Forest Road Program (FRP), along with the support and construction of roads and bridges financed direct from FRP.

The following table displays the Forest Road Program funding for fiscal years 1983-1985. Support dollars are shown with the benefitting program. Table 1 is followed by a description of the major FRP activities.

TABLE 1

Forest Road Program Fund Breakdown

	<u>1983</u>	<u>1984</u>	<u>1985</u>
Purchaser credit (PCP) and purchaser election (PEP) program and support <u>a/</u>	(285,000)	(290,500)	(320,129)
Road planning and management	\$ 43,834	45,354	35,026
Construction and preconstruction engineering	\$ 72,539	71,300	72,000
Augmentation	\$ 7,808	7,800	8,000
Subtotal	\$ 124,181	124,454	115,026
Forest road program and support			
Road planning and management	\$ 13,063	13,446	25,360
Construction and preconstruction engineering	\$ 25,395	24,975	25,400
Road construction/reconstruction:			
Construction	\$ 82,530 <u>b/</u>	45,448	40,980
Reconstruction	\$ _____	14,352	25,118
Subtotal	\$ 120,988	98,221	116,858
Total funding for all programs	\$ 245,169	222,675	231,884

a/ Dollars shown in parenthesis are for PCP and PEP. Construction costs of the purchaser credit and purchaser election programs are not funded by the Forest Road program appropriation.

b/ Includes construction and reconstruction. Break-out not available.

Planning and Management

This portion of the appropriation finances all management costs of the three programs, in addition to the transportation planning as necessary for the Forest planning effort. This appropriation also provides specific planning to determine road location to best fit all resource needs whether the roads are built from appropriated funds or the PCP/PEP programs.

Preconstruction Engineering

This part of the appropriation is used to survey, design, and plan preparations of roads to be constructed by all three programs. The work is performed through a combination of in-house personnel and contracting with architect engineering firms.

Construction Engineering

That work necessary to control road construction after a contract has been awarded (including construction staking and inspection of work) to assure contract compliance and correct payment for work performed.

Construction and Reconstruction

This is the actual costs of constructing and reconstructing roads and bridges as necessary to serve the resource needs of the National Forest System. The bridge replacement program is a continuing effort resulting from the National Bridge Safety Program, which identifies structures currently not meeting safety requirements for highway loads. Road reconstruction encompasses both betterment of existing roads to a higher standard and restoration of roads to the standard to which they were originally built. Surface rock replacement is financed from reconstruction projects.

Augmentation

In some cases, roads financed through the Timber Purchaser Program have FRP funds provided to satisfy the following situations:

- 1) Supplemental funds are provided where a specific road standard is greater than necessary to remove timber in a Timber Sale Contract. These funds represent the differences in construction costs between the road required for timber removal and the higher standard road necessary for all resource uses.
- 2) Deficit sale financing is used in specific timber sales where the timber value is too low to provide the minimum return to the U.S. Treasury (base rates). Funds may be made available to finance a portion of the road costs up to 50 percent of the normal profit margin as determined by Forest Service appraisal. This program assures an even flow of timber in depressed market conditions to communities dependent on National Forest timber for economic stability.

Relationship between PCP and FRP

Road construction needs are identified through transportation planning which is completed as a part of the Forest Plan. These plans specify the location of arterial and collector roads and the need for local roads based on the resource activities to take place on the land. Ten-year timber harvest programs are also identified in the Forest Plan. As specific projects (such as timber sales or recreation site developments) move in time toward the year of construction, planning intensifies to describe the precise location and standards of roads needed for the project. Within the timber sale program, decisions are made 3 to 4 years in advance of the sale whether specific roads will be constructed by the timber purchasers through the Purchaser Credit Program or by public works contract in advance of sale offerings. Roads will be programmed in the Forest Road Program due to any of the following conditions:

1. The standard of the road is greater than required for removal of timber from the proposed sale. Often arterial and collector roads serve multiple resources and require higher standards.
2. Total cost of a specific road is too high to be reasonably borne by the timber purchaser due to its length or difficult construction conditions caused by topography, or beyond the capabilities of logging contractors of the local area.
3. Timber values are low resulting in insufficient Purchaser Credit funds within the sale. This condition occurs in some locations of the Intermountain West and Appalachia where community economic stability is dependent on local mills.
4. More than one timber sale will be hauled over a proposed road at the same time. Rather than have one operator become dependent on the other for timely completion of construction, the road is built in advance from Forest Road Program funds.

Ninety-one percent of 1983 funds was spent on roads needed to access timber. However, roads are also required for other purposes.

Fire protection roads represented one percent of the funds in 1983. Generally, these roads are constructed on forests of high fire potential to permit rapid access for fire suppression. Most of these projects occurred in Southern California.

Two percent of the 1983 funding was programmed for recreation roads, primarily interior campground roads and short access roads to recreation sites.

Six percent was budgeted for all purpose and facility access roads. These projects are built in conjunction with Fire, Administrative, and Other Construction (FA&O) projects.

Figure 1 displays the percentage allocation of FRP funds for the fiscal year 1985 program. Fifty percent of the funds are used to support the Purchaser Credit Program (PCP) and Purchaser Election Program (PEP).

Figure 2 graphically displays how FRP funds are used to support the PCP and PEP programs.

The funding needs of the Forest Road Program do not fluctuate in direct proportion to resource outputs for the same year. As shown in Figure 3, only 11 percent of the funds in a given year are expended on projects producing outputs in the same year. Twenty-six percent is required to meet contractual obligations of prior years through contract adjustments and construction inspection, and 63 percent is spent on roads to produce outputs for future years. Roads built through the FRP most often must be contracted at least one year prior to offering the timber for sale.

Road Costs Per Mile

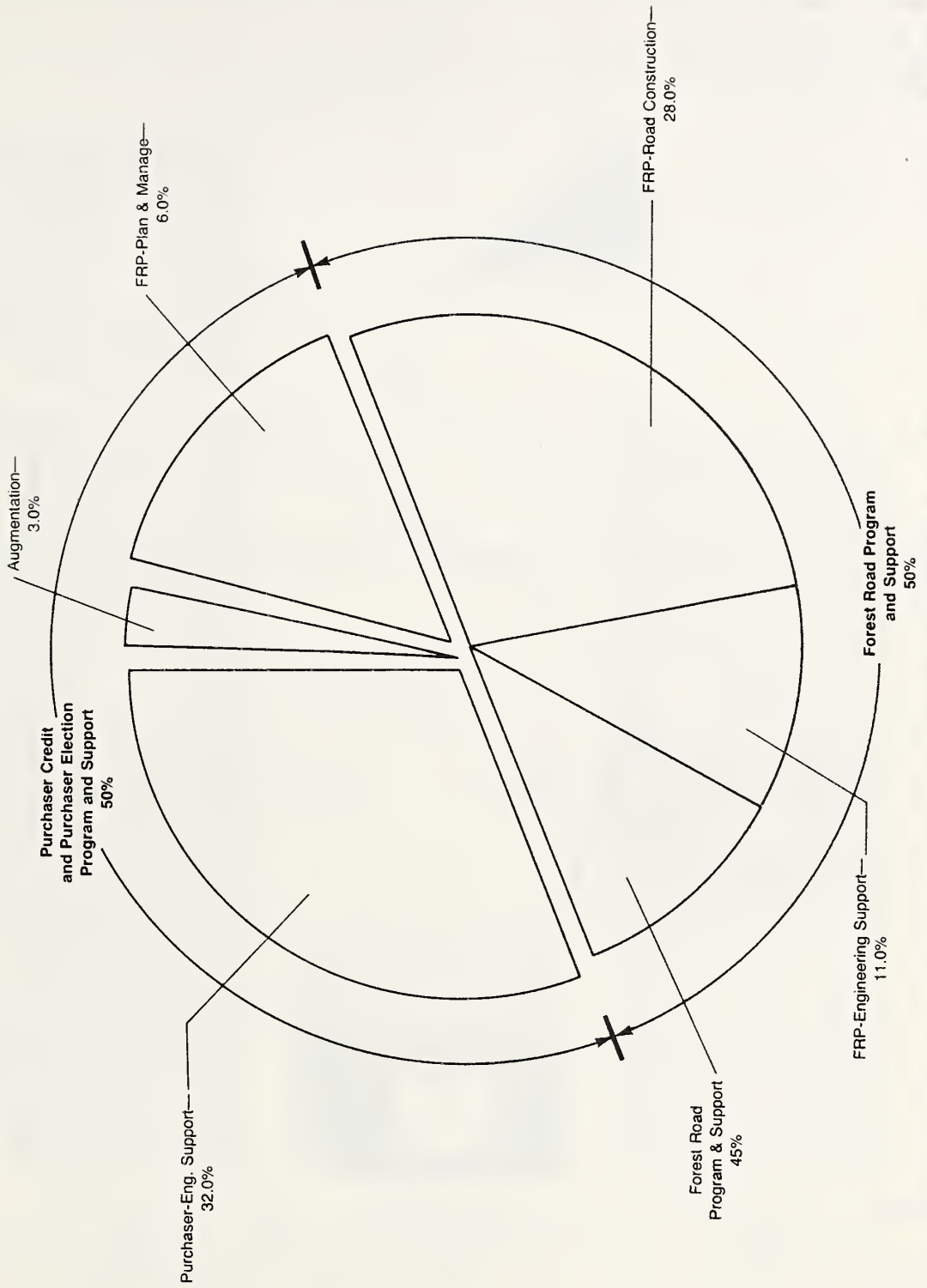
Recent efforts have reduced the unit cost of roads. These savings have been realized through reducing the road standards, i.e., width, alignment, base, and surfacing. Reduced prices for contracts have helped also.

Intensified competition among contractors resulting in lower bids has also contributed to the reduction in unit costs.

In most cases, lowering road standards means that traffic will have to be managed to reduce potential conflicts in the use of roads. For example, recreation use of Forest roads may be prohibited during peak periods of use by commercial logging trucks. This increased cost is discussed in the Road Maintenance section.

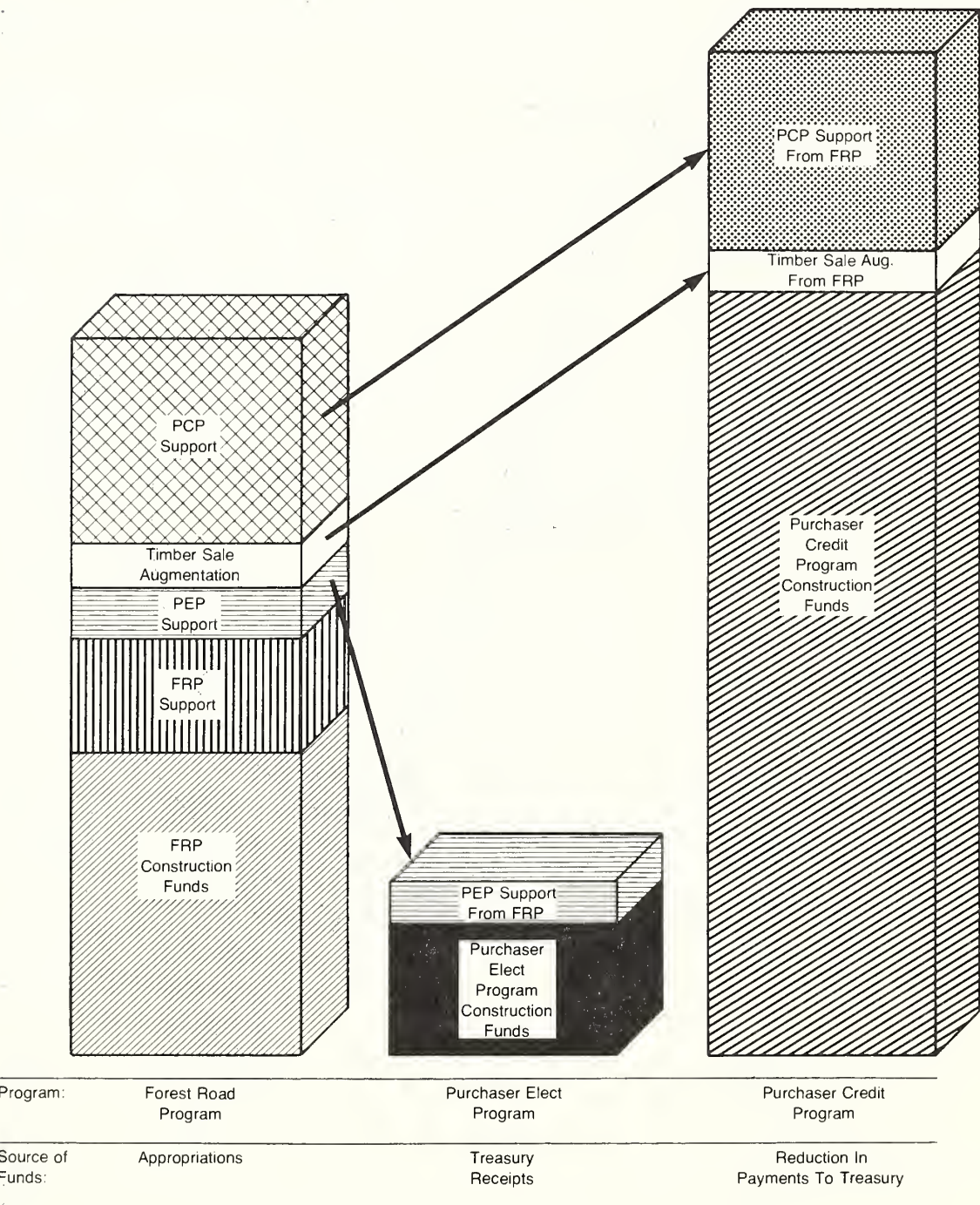
Road costs per mile vary greatly depending on such factors such as standards, amount of rock excavation, method of contracting, and topography. For comparison the following is the range of cost per mile of the three programs utilized to finance road construction.

Fiscal Year 1984 Forest Road Program Fund Breakdown



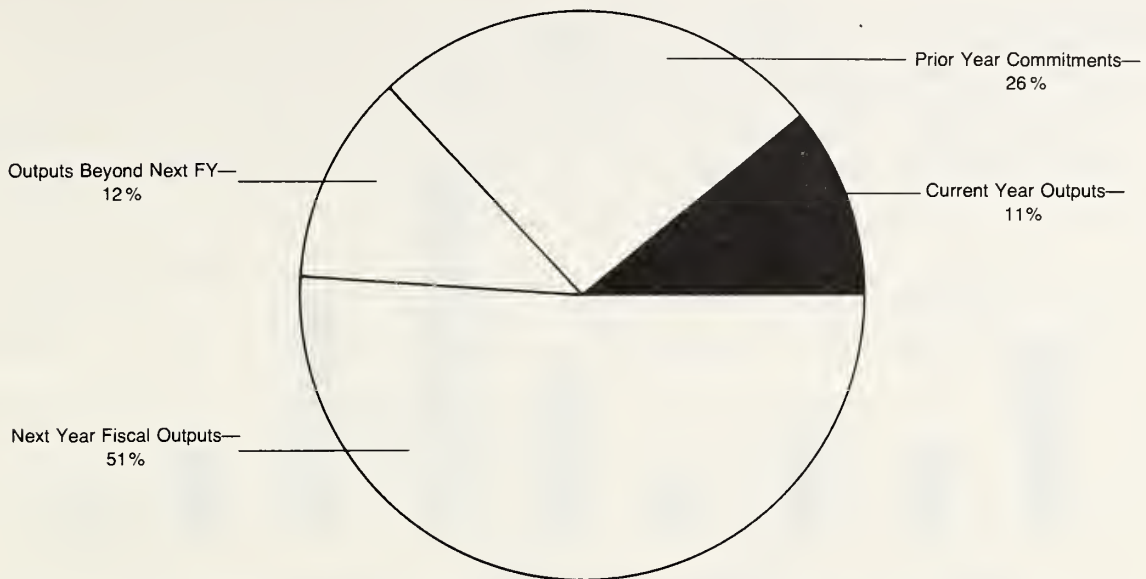
Breakout of Forest Road Program

Dollars for Support of FRP, PCP, PEP
Programs and Residual Available for Construction
(Based on FY83 Program Level)



Note: Support costs include Road Planning, Program Management, Construction and Preconstruction Engineering.

Breakdown of FY 1984 FRP Funds By Benefiting Years



COSTS PER MILE

Forest Road Program	\$ 42,000 - 220,000
Purchaser Credit Program	\$ 10,000 - 50,000
Purchaser Election Program	\$ 11,000 - 52,000

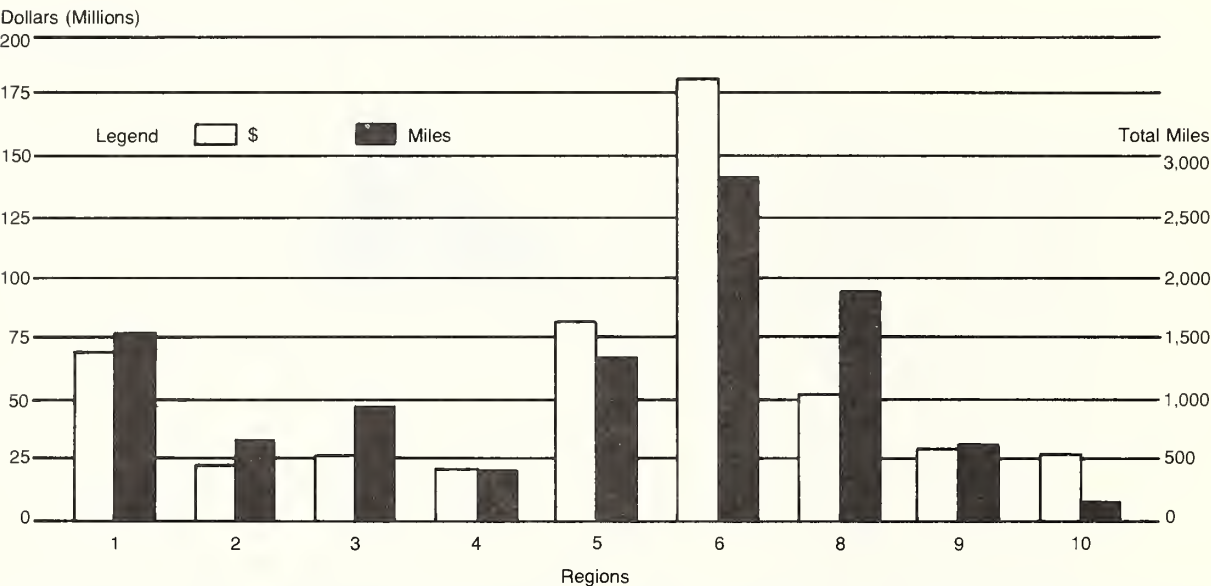
Forest Road Program projects are the high cost roads beyond the scope of the purchaser to construct. These are primarily arterial and collector roads and often include permanent surfacing and can be two-lanes wide. Most bridges are built from this fund and their costs are reflected in the cost per mile.

Purchaser Credit roads are primarily local and collector roads. Estimates for their cost do not include a minimum wage requirement (Davis-Bacon). Surfacing varies from native material to crushed stone. Purchaser Election costs per mile are higher than Purchaser Credit costs because of the inclusion of Davis-Bacon wage requirements.

The Regional costs and outputs for the total road construction program for FY-84 are shown in Figure 4. Cost per mile by Region is shown in Figure 5.

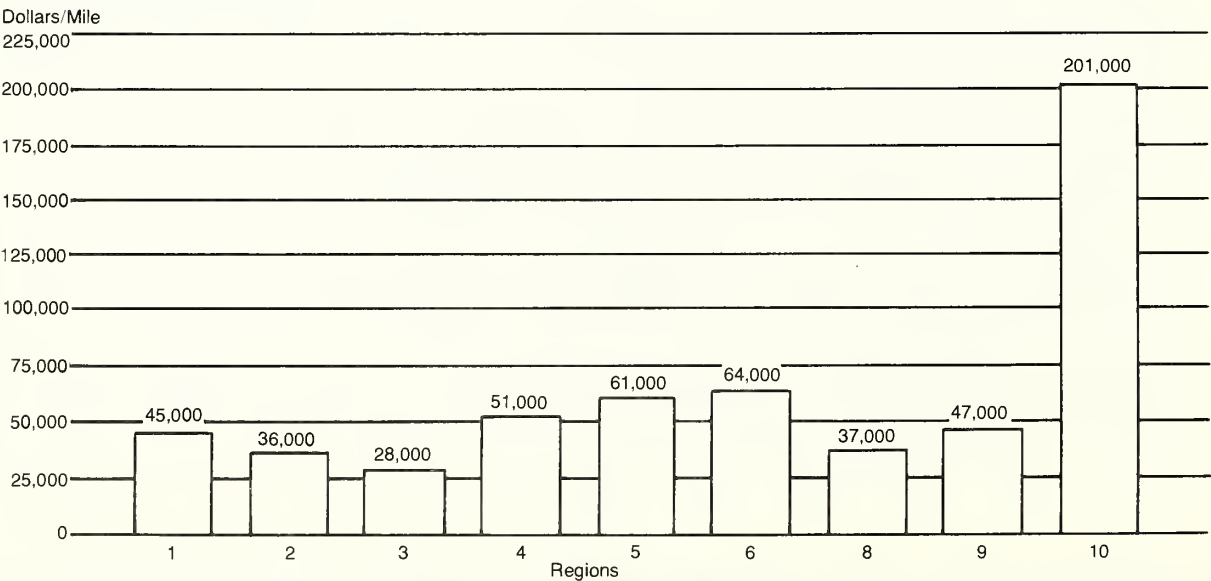
Purchaser Credit roads are counted as outputs in the year the bid for the timber sale contract is awarded. Purchaser Election and Forest Road projects are counted in the fiscal year the contract is awarded.

Road Program—\$ And Miles By Region—Fiscal Year 1984



Road Program—Cost Per Mile By Region—Fiscal Year 1984

Total \$(FRP + PCP + PEP)/Total Miles



Three-year Summary of Road Construction Programs
(Dollars in thousands)

	FY 1983		FY 1984		FY 1985	
	\$	Miles	\$	Miles	\$	Miles
Forest Road Programs (FRP)	245,169	2,016	222,675	1,195	231,884	1,406
Purchaser Credit Program (PCP)	240,000	6,395	240,000	8,552	286,226	9,168
Purchaser Election Program (PEP) <u>1/</u>	<u>44,900</u>	<u>-</u>	<u>50,475</u>	<u>-</u>	<u>33,903</u>	<u>-</u>
TOTAL	530,069	8,411	513,150	9,747	552,013	10,574

1/ Output miles of PEP are included in PCP.

Increase for 1985:

		<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Increase</u>
Road Construction.....	\$	--	231,884	+231,884
	FTE	--	4,122	+4,122

A program of \$231,884,000 in FRP funds will construct/reconstruct 1,406 miles of road, an increase of 211 miles over the 1984 level. This increase will provide access to roadless areas which was deferred in FY 1984 due to a reduced level of financing. This access is necessary to sustain a well balanced timber output program in future years.

The 1,406 miles to be constructed in FY 1985 are predominantly in support of the FY 1985 timber sales program. Roads to support programs other than timber are:

18 Miles Recreation
67 Miles General Purpose

Forest Road Program funds are also required to support management, planning, preconstruction, and construction engineering for the Purchaser Credit and Purchaser Election Programs. This output for FY 1985 will be 9,168 miles.

The funding includes a decrease of \$67,000 associated with improved efficiencies in administrative support activities and \$253,000 associated with a phased reduction of position in grades GS/GM 11-15.

Object class information:

Salary benefits	+99,445
Travel	+2,410
Transportation of things	+1,298
Rents, communication and utilities	+4,516
Printing and reproduction	+715
Supplies, materials and equipment	+6,383
Lands and structures	+78,801
Other contractual services	+38,316
 Total	 +231,884

Timber Purchaser Road Construction (PCP)

The Forest Service road construction program includes construction and reconstruction performed by the timber operators through timber sale contract requirements. Timber credits are earned by the timber operators thereby reducing the amount they must pay for the timber.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Purchaser Credit.....\$	--	286,226	+286,226
FTE	0	0	0

The \$286,226,000 program level is necessary to support a timber output of 11.2 BBF. There was carryover at the end of FY 1983 of \$90 million in purchaser credit.

Timber Purchaser Roads Constructed by the Forest Service (PEP)

Objective: Through competitive bidding, construct timber sale roads for small business purchasers who elect to have the roads constructed by the Forest Service.

Program description: The total Forest Service road construction program includes road construction and reconstruction through timber sale contract requirements. This construction work is performed by timber operators. Timber credits are earned by the operators which reduce the amount that they must pay for the timber.

Additional information on the Purchaser Election Program is included under Permanent Appropriations.

Trail Construction

	<u>1983</u> <u>Actual</u>	1984 Appropriation <u>Enacted</u> <u>to Date</u> (Dollars in thousands)	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	Inc.(+) or Dec.(-) <u>from Base</u>
Trail Construction.....\$	4,936	5,182	--	5,264	+5,264
Miles.....	444	425	--	425	+425
FTE	90	95	--	95	+95

Objective: To increase the opportunities for trail related recreation and to provide access to the National Forest for administration.

Program description: National Forest System trails are vital to meet the Forest Service objectives of increasing the supply of cost-efficient recreational opportunities. Trails offer the public access to the National Forest with a minimal investment.

Much of the trail construction funds are used for manufacture and installation of trail signs; design, fabrication and erection of trail bridges; design and construction of trail-head facilities including parking lots and horse corrals. The costs of these facilities may be substantial but do not show as increases in mileage of new trail construction.

Trails built and reconstructed to accommodate handicapped users or motorized use are more costly than trails for hiking and horse use. Steep terrain requires more excavation. Highly erodible soils require special control measures and wet soils require special drainage measures or reinforcement of the trail surface. Heavy timber areas result in higher tree felling and brushing costs. Rocky sections may require drilling and blasting with explosives. Remote sections of trail construction, far from towns, require contractors to pay higher wages and the agency to pay per diem. Because of these factors, trail construction and reconstruction costs can vary from \$4,000 per mile for hiking trails in flat, open terrain with well drained soils, to over \$50,000 per mile for trails to accommodate motorized use through difficult terrain and soils.

Frequently, trail bridges must be built. Where natural materials are not available, such as large straight trees, it may be necessary to construct or reconstruct a prefabricated bridge. To design, manufacture and construct a major bridge in rugged terrain at a remote location can easily cost \$100,000.

Increase for 1985:

	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Increase</u>
Trail Construction.....\$	--	5,264	+5,264
FTE	--	95	+95

The increase of \$5,264,000 provides for priority construction and reconstruction of 425 miles of trails as necessary for increased recreation use, to prevent resource damage, and for volunteer assistance under provisions of Section 11 of the National Trails System Act.

A decrease of \$2,000 is associated with improved efficiencies in administrative support activities; and \$5,000 is associated with phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary	+2,430
Supplies, materials and equipment	+ 810
Communications, utilities and other rent	+1,012
Land and structures	+ 404
Other contractual services	+ 608
Total	+5,264

PROJECT LISTING
Research Construction

Safety and Health -- Projects totalling \$1,670,000 to correct critical safety and health problems and electrical, structural, and mechanical deficiencies to meet Federal and local safety codes at existing research laboratories:

<u>Station</u>	<u>Location</u>	<u>Project</u>	<u>Amount (in thousands)</u>
Pacific Northwest	Bend, OR; LaGrande, OR; Wenatchee, WA Olympia, WA; Fairbanks, AK; Blue River, OR	Chemical storage flammable storage facilities	132
Intermountain	Moscow, ID; Missoula, MT; Provo, UT	"	27
North Central	Rhinelander, WI; East Lansing, MI; Kawishiwi, MN; Houghton, MI; St. Paul, MN; Carbondale, IL; Grand Rapids, MN	"	76
Northeastern	Hamden, CT; Parsons, WV	"	28
Southeastern	Coweeta, NC; Charleston, SC; Olustee, FL	"	66
Pacific Northwest	Fairbanks, AK; Olympia, WA; Corvallis, OR	Install, repair or replace fume or safety hoods and exhaust systems on unsafe laboratory equipment	127
Rocky Mountain	Tempe, AZ; Flagstaff, AZ	"	8
North Central	Carbondale, IL	"	12
Northeastern	Warren, PA	"	7
Pacific Southwest	Tanbark, CA; Miami, CA	Correct electrical deficiencies to meet building codes	9

<u>Station</u>	<u>Location</u>	<u>Project</u>	<u>Amount (in thousands)</u>
Intermountain	Moscow, ID; Boise, ID; Ephraim, UT; Milford, UT	"	47
North Central	Stationwide	"	51
Northeastern	Stationwide	"	23
Southeastern	Bent Creek, NC	"	23
Southern	Rio Piedras, PR; Crossett, AR	"	83
FPL	Madison, WI	Correct electrical, structure, and mechanical deficiencies	394
FPL	Madison, WI	Install sprinkler system and repair standpipe and hose systems	166
Pacific Northwest	Wenatchee, WA; Olympia, WA; Corvallis, OR; LaGrande, OR	Install smoke detector, fire alarm, fire suppression and security systems	63
Intermountain	Provo, UT; Boxeman, MT; Boise, ID; Logan, UT	"	53
North Central	St. Paul, MN; Rhineland, WI; Grand Rapids, MN; Carbondale, IL; Houghton, MI	"	39
Northeastern	Princeton, WV	"	18
North Central	Houghton, MI	Connect FSL to Michigan Tech. Univ. steam lines	141
Pacific Northwest	Blue River, OR; Fairbanks, AK	Handicapped access	39
Intermountain	Missoula, MT	"	21
Northeastern	Hamden, CT	"	<u>17</u>
TOTAL			\$1,670

FY 1985
PROJECT LISTING
Construction for Fire, Administrative and Other Purposes

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount (in thousands)</u>
<u>Region 1:</u>			
R1	Region-wide	Planning and Design of Outyear Projects	126
MT	Beaverhead	Wisdom Crew Quarters	100
MT	Beaverhead	Wisdom Office	250
ID	Clearwater	Powell Triplex Housing	230
ID	Clearwater	Powell Crew Quarters	200
ID	Idaho P/H	Coeur D'Alene Fire Management Center - Phase I	150
ID	Clearwater	Canyon Work Center Crew Quarters	200
		Total Region 1	1,256

Region 2:

R2	Region-Wide	Planning and Design of Outyear Projects	169
NE	Nebraska	Bessey Nursery Tree Processing Building	664
WY	Medicine Bow	Jack Creek Work Center Utilities	107
R2	Region-wide	Other small projects (under \$100,000)	136
		Total Region 2	1,076

Region 3:

R3	Region-Wide	Planning and Design of Outyear Projects	73
AZ	Kaibab	Jacob Lake Crew Quarters No.1	184
NM	Carson	Tres Piedras Warehouse	249
NM	Lincoln	Guadalupe Crew Quarters	168
NM	Cibola	Albuquerque Air Tanker Base	175
R3	Region-wide	Rehabilitate Water and Sewer Systems	187
R3	Region-wide	Other small projects (under \$100,000)	47
		Total Region 3	1,083

FY 1985
PROJECT LISTING

Construction for Fire, Administrative and Other Purposes

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount (in thousands)</u>
<u>Region 4:</u>			
R4	Region-Wide	Planning and Design of Outyear Projects	214
ID	Payette	Brownlee Guard Station - Phase I	118
R4	Region-Wide	Potable Water Systems Rehab and/or Replacement	257
ID	Payette	Bear Work Center - Phase I	142
R4	Region-wide	Other small projects (under \$100,000)	<u>223</u>
Total Region 4			954

Region 5:

CA	Region-Wide	Planning and Design of Outyear Projects	163
CA	Lassen	Bogard Work Center Water System	271
CA	Region-Wide	Telecommunications Facilities	466
CA	Angeles	Fox Field Air Tanker Base - Phase IV	<u>732</u>
Total Region 5			1,632

Region 6:

R6	Region-wide	Planning and Design of Outyear Projects	328
OR	Willamette	Lowell Gas Storage/Pumps With Flammable Storage	103
WA	Colville	Colville Hazardous Storage Facilities	228
WA	Mt. Baker-Snoq	Darrington Crew Quarters	103

FY 1985
PROJECT LISTING
Construction for Fire, Administrative and Other Purposes

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount (in thousands)</u>
<u>Region 6:</u>			
WA	Olympic	Quinault Office Addition	783
WA	Olympic	Quilcene Office Addition	375
R6	Region-wide	Other small projects (under \$100,000)	<u>327</u>
		Total Region 6	2,247

Region 8:

R8	Region-Wide	Planning, Design, and Site Acquisition	262
TX	Sabine	Tenaha Work Center Replacement	618
TN	Cherokee	Oconee Office Replacement	257
FL	Apalachicola	Apalachicola Work Center Replacement	634
SC	Sumter	Enoree Office Replacement	224
VA	George Washington	Warm Springs Office Expansion/Work Center Replacement	477
SC	Sumter	Andrew Pickens Office Replacement	214
R8	Region-Wide	Fire Lookout Tower Rehabilitation	<u>111</u>
		Total Region 8	2,797

Region 9:

R9	Region-Wide	Planning and Design of Outyear Projects	98
MI	Ottawa	Bessemer Office Replacement	565
MN	Superior	Aurora Office Expansion	278
PA	Allegheny	Bradford Office Expansion	478
MI	Huron-Manistee	White Cloud Office Expansion	<u>122</u>
		Total Region 9	1,541

FY 1985
PROJECT LISTING
Construction for Fire, Administrative and Other Purposes

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount (in thousands)</u>
<u>Region 10:</u>			
AK	Region-Wide	Planning Design, and Construction Engineering	96
AK	Ketchikan Area	Thorne Bay Range District Duplex	266
AK	Ketchikan Area	Misty Fiords Floating Camp	<u>201</u>
		Total Region 10	563
		Total Construction for Fire, Administrative and Other Purposes	<u>13,149</u>

FY 1985
PROJECT LISTING
Recreation Use Construction

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount (in thousands)</u>
<u>Region 1</u>			
MT, ID	Northern Region	Sanitation and Water System Rehabilitation	80
MT, ID	Northern Region	Facility Rehabilitation or Replacement	20
Total, Region 1			\$ 100
<u>Region 2</u>			
CO, WY	Rocky Mountain Region	Water Systems to Place Sites on Fee System	186
Total, Region 2			\$ 186
<u>Region 3</u>			
AZ	Tonto	Phon D. Sutton Sanitation (Lower Salt River)	50
AZ	Tonto	Phon D. Sutton Parking	98
Total, Region 3			\$ 148
<u>Region 4</u>			
ID, NV WY, CA	Intermountain Region	Rehabilitation of Existing Facilities with Emphasis on Correcting Water and Sanitation Problems	220
Total, Region 4			\$ 220
<u>Region 5</u>			
CA	Pacific Southwest	New Water Systems to Place or Keep Sites on Fee System	400
Total, Region 5			\$ 400
<u>Region 6</u>			
OR	Mt. Baker- Snoqualmie	Water and Sanitation Rehabilitation to Place Sites on Fee System	73

OR	Umatilla, Siskiyou	Water and Sanitation Systems To Place Sites on Fee System	47
OR	Umatilla, Siskiyou, Deschutes	Grayback Campground, Spring Campground, Diamond Lake Campground Rehabilitation	257

Total, Region 6			\$ 377
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Region 8

AR	Ouachita	Cedar Lake Dam Repair	50
VA	G. Washington	Gathright Reservoir Rehabilitate 6 toilets	100
VA	Jefferson	North Fork of Poug Sanitation System Rehabilitation	45
TX	Texas	Rehab. Water and Sanitation Systems at 2 Areas	25
NC	North Carolina	Water Systems Rehabilitation	25

Total, Region 8			\$ 245
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Region 9

MO	Mark Twain	Council Bluff Lake Boat Ramp Initiate Construction	175
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Total, Region 9			\$ 175
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Region 10

AK	Tongass	Mendenhall Visitor Center Finish Replacement of Water System	80
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Total, Region 10			\$ 80
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TOTAL, RECREATION CONSTRUCTION			\$ 1,931
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CONSTRUCTION

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1103-0-1-302				
Program by activities:				
Direct program:				
	1. Construction of facilities	24,688	21,978	16,747
	2. Road and trail construction	247,336	209,820	237,110
	3. Pollution abatement	-258	--	--
	4. Land acquisition	12,230	--	--
	5. Mt. St. Helens timber salvage	827	--	--
	Total direct program	284,823	231,798	253,857
	Reimbursable program	2,409	4,000	4,000
10.00	Total obligations	287,232	235,798	257,857
Financing:				
Offsetting collection from:				
11.00	Federal funds	-2,163	-3,811	-3,811
14.00	Non-Federal sources	-246	-189	-189
17.00	Recovery of prior year obligations	--	-224,554	--
21.40	Unobligated balance available, start of year	-36,418	-60,512	-69,566
24.40	Unobligated balance available, end of year	60,512	69,566	69,607
25.00	Unobligated balance lapsing	1,649	224,612	--
39.00	Budget authority	310,566	240,910	253,898
Budget authority:				
40.00	Appropriation	310,566	251,724	253,898
Transfers in for:				
45.00	Transfers out for pay raises	--	-10,814	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	284,823	231,798	253,857
72.40	Obligated balance, start of year	496,104	378,695	103,337
74.40	Obligated balance, end of year	-378,695	-103,337	-101,930
78.00	Adjustments in unexpired accounts	--	-224,554	--
90.00	Outlays	402,232	282,602	255,264

CONSTRUCTION

OBJECT CLASSIFICATION (in thousand of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1103-0-1-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	90,189	85,852	84,334
11.3	Other than full-time permanent	13,481	13,551	12,886
11.5	Other personnel compensation	1,047	1,174	1,286
11.8	Special personal services payments ..	3	3	3
11.9	Total personnel compensation	104,720	100,380	98,509
Personnel benefits:				
12.1	Civilian	12,263	8,879	8,713
13.0	Benefits for former personnel	3,172	2,297	2,254
21.0	Travel and transportation of persons	3,615	2,617	3,108
22.0	Transportation of things	1,553	1,124	1,335
23.1	Standard level user charges	1,494	2,015	1,841
23.2	Communications, utilities, and other rent	4,532	3,281	3,896
24.0	Printing and reproduction	506	366	435
25.0	Other services	67,066	48,233	59,259
26.0	Supplies and materials	7,016	5,045	6,044
31.0	Equipment	7,972	5,733	6,868
32.0	Lands and structures	65,451	47,069	56,388
41.0	Grants, subsidies, and contributions	2	1	1
42.0	Insurance claims and indemnities	356	258	306
44.0	Refunds	-795	--	--
99.0	Subtotal direct obligations	278,923	227,298	248,957
99.0	Reimbursable obligations	2,409	4,000	4,000

CONSTRUCTION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-1103-0-1-302				
ALLOCATION TO FEDERAL HIGHWAY ADMINISTRATION				
Personnel compensation:				
11.1	Full-time permanent	257	196	214
11.3	Other than full-time permanent	70	53	58
11.5	Other personnel compensation	25	19	21
11.9	Total personnel compensation	352	268	293
Personnel benefits:				
12.1	Civilian	36	27	29
21.0	Travel and transportation of persons	158	121	132
22.0	Transportation of things	160	122	133
23.2	Communications, utilities, and other rent	34	26	28
24.0	Printing and reproduction	3	2	2
25.0	Other services	1,773	1,352	1,472
26.0	Supplies and materials	18	14	15
31.0	Equipment	2	2	2
32.0	Lands and structures	3,364	2,566	2,794
99.0	Subtotal obligations, Federal Highway Administration	5,900	4,500	4,900
99.9	Total obligations	287,232	235,798	257,857

CONSTRUCTION
PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-1103-0-1-302			
Direct:			
Total number of full-time permanent positions	4,217	3,853	3,854
Total compensable workyears:			
Full-time equivalent employment	4,642	4,266	4,268
Full-time equivalent of overtime and holiday hours	59	43	40
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800
Reimbursable:			
Total number of full-time permanent positions	11	17	16
Total compensable workyears:			
Full-time equivalent employment	19	30	28
Average ES salary	--	--	--
Average GS grade	11.48	11.57	11.57
Average GS salary	27,640	29,240	29,240
Average salary of ungraded positions ...	--	--	--
Allocation Accounts:			
Total number of full-time permanent positions	11	8	8
Total compensable workyears:			
Full-time equivalent employment	16	12	12
Full-time equivalent of overtime and holiday hours	1	1	1
Average ES salary	--	--	--
Average GS grade	10.28	10.39	10.39
Average GS salary	23,360	24,500	24,500
Average salary of ungraded positions ...	--	--	--

LAND ACQUISITION

		<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc. (+) or Dec. (-) from Base</u>
(Dollars in thousands)						
Land and Water Conservation Fund (L&WCF) ..	\$	63,077	38,552	38,626	9,635	-28,991
Acres acquired ...		44,398	17,820	17,820	2,000	-15,820
Weeks Act	\$	--	--	--	--	--
Total		63,077	38,522	38,626	9,635	-28,991
	FTE	98	84	84	74	-10

Appropriation Summary Statement

The Weeks Act of March 1, 1911, provides for the acquisition of land to protect watersheds of navigable streams and for timber production. The Land and Water Conservation Fund Act of September 3, 1964 (78 Stat. 897, as amended; 16 U.S.C. 4602-4 to 4602-11) provides funding for the acquisition of recreation lands and interests. The acquisitions are made under authorities of various acts and provide for high priority outdoor recreation opportunities within the National Forest System.

Authorities:

P.L. 61-435, Weeks Act, March 1, 1911, as amended by P.L. 94-588, (16 U.S.C. 516, 521b)

Section 1 and 2

Land acquisition for watershed protection and timber production
(05-96) 12-1103 302 SAGR HAGR

P.L. 68-575, The Act of March 3, 1925, as amended (16 U.S.C. 555)

Section 5

Purchase of land, acceptance donation of land.

Such sums as are necessary not to exceed \$50,000 per fiscal year.
No expiration date.

P.L. 75-210; Title III, The Bankhead-Jones Farm Tenant Act, as amended July 22, 1937 (7 U.S. C. 1010, 1011).

Sections 31 and 32

Land acquisition, exchange and authority to correct maladjustments for Land Utilization purposes.

Such sums as are necessary. No expiration date.

P.L. 84-479, The Act of August 3, 1956 (7 U.S.C. 428a)

Section 11

Land or interests in land by purchase, exchange or otherwise.

P.L. 88-577, Wilderness Act, September 3, 1964

Sections 5 and 6

Land acquisition, exchange, donation.

Such sums as appropriated by Congress. No expiration date.

P.L. 90-542, Wild and Scenic Rivers Act, October 2, 1968

Sections 6 and 16

Land acquisition, exchange, donation.

Such sums as appropriated by Congress. No expiration date.

P.L. 90-543, National Trails System Act, October 2, 1968, as amended by P.L. 98-11

Sections 7 and 10

Land acquisition, exchange, donation.

Such sums as appropriated by Congress. No expiration date.

P.L. 93-205, Endangered Species Act, December 28, 1973

Sections 2 and 3

Protection of threatened and endangered species.

P.L. 93-622, Eastern Wilderness Act, January 3, 1975

Sections 6 and 9

Land acquisition, exchange, donation.

Such sums as appropriated by Congress. No expiration date.

P.L. 94-579, Federal Land Policy and Management Act, October 21, 1976;

(43 U.S.C. 1715 and 1716) Sections 205 and 206

Land exchange, acquisition and cash equalization.

Such sums as are appropriated. No expiration date.

Additional authorities are provided in each of the acts establishing National Recreation Areas, wildernesses, and other specific area legislation.

P.L. 95-495, Boundary Waters Canoe Area Wilderness and Mining Protection Area Act, October 21, 1978

Sections 5d, 6(d)(e), 11(e)(f), and 18(e)

Such sums as are appropriated. No expiration date.

P.L. 96-586, Lake Tahoe Basin Act, December 23, 1980

Sections 2 and 3

Land acquisition

Such sums as are appropriated. No expiration date.

Objective: Provides for acquisition of lands, waters and interests therein needed for protection of watersheds of navigable streams, for timber production, for high priority outdoor recreation opportunities, for protection and management of wildlife habitat, and for critical habitat for threatened and endangered species. For these authorities cash equalization may be paid from benefiting funds.

Land and Water Conservation Fund

Objective: Lands, waters, and interests therein are acquired within the National Forest System for recreation, wilderness, wildlife habitat management areas, endangered species, and other areas important for public outdoor recreation purposes.

Program description: The proposed \$9,635,000 program will provide funding to complete purchases already started and acquire critical properties in the Boundary Waters Canoe Area Wilderness and the Lake Tahoe Basin. Land exchanges will be used to acquire priority lands so cash equalization funds will be needed to balance values.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Land and Water Conservation Fund\$	--	9,635	+9,635
FTE	--	74	+74

The recommended level of funding for the L&WCF program in fiscal year 1985 will provide for the closing of existing cases and new purchases of approximately 161 acres in the Boundary Waters Canoe Area Wilderness and 500 acres in the Lake Tahoe Basin. It will also provide for the acquisition of approximately 1,340 acres through cash equalization in the Land Exchange Program.

Over the past ten years, approximately 500⁰⁰⁰ acres have been acquired at a cost of \$349.6 million, or an average of \$699 per acre.

Since the beginning of the program in 1965, nearly 1.1 million acres of land needed for outdoor recreation within the National Forest System have been acquired for approximately \$500 million or about \$455 per acre.

The proposed program does not include funding for the Office of the General Counsel (OGC) for the legal services provided in connection with the Land and Water Conservation Fund. Funds will be provided to OGC through direct appropriations in the Agriculture and Related Agencies Appropriation in FY 1985.

This funding level realizes a decrease of \$1,000 associated with improved efficiencies in administrative support activities and \$4,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries and benefits	+2,100
Travel	+62
Transportation of things	+13
Rents, communications and utilities	+73
Printing reproduction	+3
Supplies, materials and equipment	+49
Lands and structures	+6,070
Other contractual services	+1,265
Total	+9,635

LAND ACQUISITION
PROGRAM AND FINANCING (in thousands of dollars)

Identification code: 12-5004-0-2-303		1983 actual	1984 est.	1985 est.
Program by activities:				
10.00	Total obligations	51,164	59,647	16,662
Financing:				
17.00	Recovery of prior year obligations	-136	--	--
21.40	Unobligated balances available, start of year	-12,365	-38,763	-17,691
22.40	Unobligated balance transferred, net ..	-14,349	--	--
24.40	Unobligated balance available, end of year	38,763	17,691	10,664
39.00	Budget authority	63,077	38,575	9,635
Budget authority:				
40.00	Appropriation	56,877	38,552	9,635
42.00	Transferred from other accounts	6,200	--	--
43.00	Appropriation (adjusted)	63,077	38,552	9,635
Transfers in for:				
46.20	Civilian pay raises	--	23	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	51,164	59,647	16,662
72.40	Obligated balance, start of year	2,991	17,939	28,451
73.40	Obligated balance transferred, net ..	1,204	--	--
74.40	Obligated balance, end of year	-17,939	-28,451	-16,558
78.00	Adjustment in expired accounts	-136	--	--
90.00	Outlays excluding pay raise supplemental	37,284	49,113	28,554
91.20	Outlays from civilian pay raise supplemental	--	22	1

LAND ACQUISITION
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-5004-0-2-303				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	2,400	2,184	1,732
11.3	Other than full-time permanent	125	91	94
11.5	Other personnel compensation	16	11	9
11.9	Total personnel compensation	2,541	2,286	1,835
Personnel benefits:				
12.1	Civilian	300	356	286
13.0	Benefits for former personnel	14	17	14
21.0	Travel and transportation of persons	85	97	25
22.0	Transportation of things	18	23	6
23.1	Standard level user charges	35	47	43
23.2	Communications, utilities, and other rent	67	80	21
24.0	Printing and reproduction	4	5	1
25.0	Other services	1,785	2,093	541
26.0	Supplies and materials	39	46	12
31.0	Equipment	27	34	9
32.0	Lands and structures	46,249	54,563	13,869
99.9	Total obligations	51,164	59,647	16,662

FOREST SERVICE LAND ACQUISITION

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-5004-0-2-303			
Direct:			
Total number of full-time permanent positions	102	89	79
Total compensable workyears:			
Full-time equivalent employment	98	84	74
Full-time equivalent of overtime and holiday hours	1	1	1
Average ES salary	62,665	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800

ACQUISITION OF LANDS FOR WINEMA NATIONAL FOREST, OREGON

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date (Dollars in thousands)	1985 RPA	1985 Base	1985 <u>Estimate</u>	Inc. (+) or Dec. (-) <u>from Base</u>
Acquisition of Lands for Winema National Forest, Oregon\$	--	281	--	281	--	-281

Appropriation Summary Statement

The Act of December 5, 1980, established a special account for the receipt of Edison Chiloquin's donation to the Secretary of Agriculture for acquisition of lands or interests therein within the Winema National Forest.

Authority:

Private Law 96-98, Act of December 5, 1980 (Edison Chiloquin, lands and interests in Trust; Special fund; 25 U.S.C. 564w-2)

Objective: To provide for setting aside in special trust lands and interests within the Winema National Forest to Edison Chiloquin and for the transfer of monies otherwise available to Mr. Chiloquin from the Klamath Indian Settlement to the Secretary of Agriculture for the acquisition of replacement lands or interests.

Program description: When the money in trust is released, the Forest Service will acquire lands or interests within the former boundaries of the Klamath Indian Reservation. All such land will become part of the Winema National Forest.

Decrease for 1985:

A decrease of \$281,000 in 1985 assumes that the lands will be acquired in FY 1984.

Object class information:

Land and structures	-281
Total	-281

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

	<u>1983</u> <u>Actual</u>	1984 Appropriation Enacted to Date	1985 RPA	1985 Base	1985 Estimate	Inc. (+) or Dec. (-) from Base
		(Dollars in thousands)				
Acquisition of lands for National Forests, special acts	753	780	843	782	782	--
Acres acquired	380	700	--	700	700	--
FTE	2	2	--	2	2	--

Appropriation Summary Statement

The Congress has enacted several special laws which authorize appropriation from the receipts of specified National Forests for the purchase of lands to minimize erosion and flood damage.

These are critical watershed lands needing soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within these National Forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective. To assure full program effectiveness, the intermingled private lands are acquired by the Federal Government. Results are reflected in improved watershed conditions.

The counties in Utah, Nevada, and southern California have recognized the benefits that these acquisition programs have produced. They are very interested in having these critical lands protected through public ownership. At present, damages to the lands are occurring which can only result in future expenditures of public funds for rehabilitation and public safety at costs greatly exceeding current land acquisition costs.

Authorities:

Public Laws 75-505, 74-367, 75-748, 78-591, and 75-634: (58 Stat. 227 and 54 Stat. 299).

Acquisition of lands for control of soil erosion and flood damage originating within the boundaries of National Forests.

(05-96) 12-5208 302 SENP RIIA

Toiyabe - \$10,000 annually

Others - Such sums as appropriated out of receipts by Congress, no expiration date specified.

Objective: To purchase lands within critical watersheds that need soil stabilization and restoration of vegetation to prevent serious erosion and resultant damaging floods. Funds may also be used for cash equalization in land exchanges involving acquisition of these lands.

Program description: Lands are acquired on a willing-seller basis. After acquisition, the lands are managed to stabilize the soils and restore vegetative cover to prevent serious erosion and damaging floods. In the last three years, 1,925 acres were acquired at a cost of \$1,431,100.

	<u>1983 Actual</u>	<u>1984 Estimate</u>	<u>1985 Estimate</u>
1. Cache, National Forest, Utah, Act of 5/11/38, as amended	\$ 20,000	20,000	20,000
2. Uinta-Wasatch National Forests, Utah, Act of 8/26/35, as amended	\$ 30,000	30,000	30,000
3. Toiyabe National Forest, Nevada, Act of 6/25/38, as amended.....	\$ 10,000	10,000	10,000
4. Angeles National Forest, California, Act of 6/11/40	\$ 343,000	260,000	261,000
5. Cleveland National Forest, California, Act of 6/11/40	\$ 175,000	160,000	160,000
6. San Bernardino and Cleveland National Forests, California, Act of 6/15/38	\$ 175,000	300,000	301,000
Total	\$ 753,000	780,000	782,000

No change in 1985.

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGE

	<u>1983 Actual</u>	<u>1984 Appropriation Enacted to Date</u>	<u>1985 RPA</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Inc. (+) or Dec. (-) from Base</u>
(Dollars in thousands)						
Acquisition of land to complete land exchange	109	20	--	20	20	--
Acres acquired	94	30	--	30	30	--
FTE	--	--	--	--	--	--

Appropriation Summary Statement

The Act of December 4, 1967 (16 U.S.C. 484a), as amended stipulates that deposits made by public school districts, public school authorities, State or local governments, to provide for cash equalization of certain land exchanges can be appropriated to acquire lands suitable for National Forest System purposes in the same State as the National Forest System (NFS) lands conveyed in the exchanges.

Authority:

P.L. 90-171, Act of December 4, 1967 as amended (Land Exchanges in the National Forest): (16 U.S.C. 484a).

Acquisition of lands to complete land exchange with public schools.
(06-96) 12-5216 302 SAGR HARG

Such sums as may be appropriated by Congress, no expiration date specified.

Objective: To acquire lands suitable for National Forest System (NFS) purposes to replace NFS lands acquired by public school districts, public school authorities, or State or local governments.

Program description: When it is in the public interest, public schools, State or local governments can acquire National Forest System lands by paying cash which is deposited into a special Treasury fund. Upon appropriation, these funds may be used within the same State to acquire replacement lands suitable for NFS purposes. The money has been specifically deposited for acquisition of replacement lands.

This program is cyclical and the availability of funds is dependent upon deposits into the fund by individual school districts or State or local governments at the time they acquire a tract of National Forest System land for public purposes.

No change in 1985.

RANGE BETTERMENT FUND

	1983 <u>Actual</u>	1984 Appropriation Enacted to Date	1985 RPA	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc. (+) or Dec. (-) from Base
			(Dollars in thousands)			
Range Betterment						
Fund	\$ 5,378	4,028	5,200	4,028	3,665	-363
FTE	121	98	---	98	86	-12

Appropriation Summary Statement

A range betterment program on National Forest System lands within the 16 western States is financed by appropriations from grazing fee receipts.

Authorities:

P.L. 95-579, Federal Land Policy and Management Act of 1976: (43 U.S.C. 1751) as amended by:

P.L. 95-514, Public Rangeland Improvement Act of 1978, October 28, 1978: (43 U.S.C. 1901-1908)

Range Management use of one-half of grazing receipts from 16 western States.
(05-96) 12-5207 302 SAGR HAGR

Such sums as are appropriated from receipts by Congress, no expiration date specified.

General: Range betterment activities involve the installation of both structural and nonstructural range improvements including, but not limited to, seeding and reseeding, fence construction, weed control, water development, and fish and associate wildlife habitat enhancement.

Objectives:

1. Arrest range deterioration and improve range forage conditions with resulting benefits to livestock production, watershed protection, and wildlife.

2. Make cost-effective investments in range improvements on areas of highest priority on National Forest System lands in the 16 western States.

3. To the extent feasible, rehabilitate, protect, and improve soil and vegetative cover on National Forest System lands in order to demonstrate sound improvement practices on associated private and other State and Federal lands.

Program Description: The authorizing legislation directs that 50 percent of the monies received by the United States as fees for grazing livestock on National Forests in the 16 contiguous western States be credited to a separate account in the Treasury, and when appropriated, be made available for on-the-ground range rehabilitation, protection, and improvements. One-half of the funds are to be used on the National Forest from which the funds originated, and the remaining one-half for range betterment within the Region of origin.

Planning and administrative funds necessary to carry out the intent of the legislation are included under the Range Management section in the National Forest System section of these notes. Outputs and accomplishments are, therefore, a combination of both appropriations and are shown as a combined total under Range Management.

Decrease in 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Range Betterment Fund.....\$	4,028	3,665	-363
FTE	98	86	-12

The decrease of \$363,000 reflects a reduction in fiscal year 1984 revenues from grazing fees derived from National Forests within the 16 western States.

Object class information:

Salary and benefits	-226
Travel	-2
Transportation of things	-13
Other services	-42
Supplies, materials and equipment	-68
Land and structures	-12
Total	-363

WORKING CAPITAL FUND

Appropriation Summary Statement

The Working Capital Fund was established by the Act of August 3, 1956, as amended by the Act of October 23, 1962 (16 U.S.C. 579b). It is a self-sustaining revolving fund which provides services to National Forests, Experiment Stations, and other Federal agencies when necessary; and as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.

Authorities: Department of Agriculture Organic Act of 1956. (70 Stat. 1034; 16 U.S.C. 579b)
Revolving fund.

Program description: The forestry-related supply and support services provided by the Working Capital Fund in fiscal year 1983 included the following:

1. Equipment - a service which owns, operates, maintains, replaces, and repairs common-use motor driven and similar equipment. This equipment is rented to administrative units, at rates which recover the cost of operation, repair, maintenance, management, and depreciation. The rates also include an increment which provides additional cash which, when added to depreciation earnings and the residual value of equipment, provides sufficient funds to replace the equipment.

2. Aircraft - a service which operates, maintains, and repairs Forest Service owned aircraft used in fire surveillance and suppression and in other Forest Service programs. The aircraft are rented at rates which recover the cost of depreciation, operation, maintenance, repair, and improvements in the airworthiness of the aircraft. Aircraft replacement costs are financed from appropriated funds, the Forest Service Working Capital Fund, or a combination of both.

3. Supply - a service which provides for the following common services:

a. Photo reproduction laboratories which store, reproduce, and supply photographs of National Forest System lands and activities at cost.

b. Sign shops which manufacture and supply special signs for the National Forests for use in regulating traffic and as information to the public and other users of the National Forests.

c. Subsistence which prepares and serves meals for Forest Service crews working in areas where adequate public restaurant facilities are not available.

4. Nurseries - a service which operates forest tree nurseries and cold storage facilities for storage of tree and seed stock and a seed extractory. Tree seed is procured, cleaned, bagged, and stored in refrigerated facilities, then sold to National Forests at cost.

Volume of Business for the Various Major Activities of Working Capital Fund
(Dollars in thousands)

		<u>1983</u> <u>Actual</u>	<u>1984</u> <u>Estimate</u>	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>
Equipment	\$	81,607	85,549	89,608	89,608
Aircraft	\$	3,200	3,355	3,588	3,588
Supply	\$	1,161	1,217	1,067	1,067
Nursery	\$	16,335	17,228	18,003	18,003
Total	\$	102,303	107,349	112,266	112,266

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund.

The increases over 1984 are due to pay act costs and increased costs of equipment purchases.

GIFTS, DONATIONS, AND BEQUESTS FOR FOREST AND RANGELAND RESEARCH

	<u>1983</u> <u>Actual</u>	<u>1984</u> <u>Appropriation</u> <u>Enacted</u> <u>to Date</u> (Dollars in thousands)	<u>1985</u> <u>RPA</u>	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Inc. (+)</u> <u>or</u> <u>Dec. (-)</u> <u>from Base</u>
Appropriated Trust Fund	\$ 90	90	--	90	90	--
FTE	--	--	--	--	--	--

Appropriation Summary Statement

Gifts and Bequests are received for research as authorized by P.L. 95-307 (16 U.S.C. 1643). Amounts received but not needed for current operations shall be invested in public debt securities. This appropriation language would make available to the Forest Service all such deposits to invest and reinvest in public debt securities.

Authority:

P.L. 95-307, Forest and Rangeland Renewable Resources Research Act of 1978:
(16 U.S.C. 1643)
Section 4 (b)

Acceptance of gifts and proceeds thereof not needed for current operations to be invested in public debt securities.

Such sums as appropriated by Congress shall remain available until expended.

Program description: Funds are used to present the annual Heritage Workshop which is designed to acquaint academic instructors with the latest technology relating to wood utilization and engineering. Balances not needed for current operations shall be invested in interest bearing securities.

No change in 1985.

OTHER APPROPRIATIONS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9911-0-1-302				
Program by activities:				
	1. Acquisition of lands for Uinta National Forest, Utah	--	51	--
	2. Acquisition of lands for Wasatch National Forest, Utah	2	158	--
	3. Acquisition of lands for Winema National Forest, Oregon	--	281	--
10.00	Total obligations (object class 32.0)	2	490	--
Financing:				
21.40	Unobligated balance available, start of year	-279	-209	--
22.40	Unobligated balance transferred, net .	68	--	--
24.40	Unobligated balance available, end of year	209	--	--
39.00	Budget authority	--	281	--
Current authority:				
40.00	Appropriation	--	281	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	2	490	--
90.00	Outlays	2	490	--
Distribution of outlays by account:				
Acquisition of lands for:				
	Uinta National Forest	--	51	--
	Wasatch National Forest	2	158	--
	Winema National Forest	--	281	--

ACQUISITION OF LANDS FOR NATIONAL FORESTS

SPECIAL ACTS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-5208-0-2-302				
Program by activities:				
	1. Cache National Forest, Utah	--	20	20
	2. Uinta and Wasatch National Forests, Utah	16	30	30
	3. Toiyabe National Forest, Nev ...	10	10	10
	4. San Bernardino and Cleveland National Forests, Calif	345	300	301
	5. Angeles National Forest, Calif .	106	260	261
	6. Cleveland National Forest, Calif.	--	160	160
10.00	Total obligations	477	780	782
Financing:				
25.00	Unobligated balance lapsing	276	--	--
40.00	Budget authority (appropriation) (special fund)	753	780	782
Relation of obligations to outlays:				
71.00	Obligations incurred, net	477	780	782
72.40	Obligated balance, start of year	138	211	211
74.40	Obligated balance, end of year	-211	-211	-211
90.00	Outlays	404	780	782

ACQUISITION OF LANDS FOR NATIONAL FORESTS
SPECIAL ACTS
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-5208-0-2-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	70	73	76
11.3	Other than full-time permanent	2	2	2
11.9	Total personnel compensation	72	75	78
Personnel benefits:				
12.1	Civilian	9	18	18
21.0	Travel and transportation of persons	3	5	5
22.0	Transportation of things	--	3	3
25.0	Other contractual services	2	3	3
26.0	Supplies and materials	2	3	3
32.0	Lands and structures	389	673	672
99.9	Total obligations	477	780	782

FOREST SERVICE ACQUISITION OF LANDS FOR NATIONAL FORESTS

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-5208-0-2-302			
Direct:			
Total number of permanent positions	2	2	2
Total compensable workyears:			
Full-time equivalent employment	2	2	2
Average ES salary	--	--	--
Average GS grade	13.11	13.24	13.37
Average GS salary	30,400	31,000	31,000
Average salary of ungraded positions ...	--	--	--

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-5216-0-2-302				
Program by activities:				
	Acquisition of land:			
	Alabama	20	--	--
	Arizona	--	--	20
	California	31	--	--
	Colorado	--	64	--
	Idaho	5	--	--
	Michigan	18	--	--
	Mississippi	1	--	--
	New Mexico	28	--	--
	Oklahoma	4	--	--
	Virginia	8	--	--
10.00	Total obligations (object class 32.0)	115	64	20
	Financing:			
21.40	Unobligated balance available, start of year	-840	-834	-790
24.40	Unobligated balance available, end of year	834	790	790
40.00	Budget authority (appropriation) (indefinite, special fund)	109	20	20
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	115	64	20
72.40	Obligated balance, start of year	97	29	73
74.40	Obligated balance, end of year	-29	-73	-73
90.00	Outlays	183	20	20

RANGE BETTERMENT FUND
PROGRAM AND FINANCING (in thousands of dollars)

Identification code: 12-5207-0-2-302		1983 actual	1984 est.	1985 est.
10.00	Total obligations	5,482	4,126	3,754
Financing:				
21.40	Unobligated balance available, start of year	-365	-261	-163
24.40	Unobligated balance available, end of year	261	163	74
40.00	Budget authority (appropriation) (indefinite, special fund)	5,378	4,028	3,665
Relation of obligations to outlays:				
71.00	Obligations incurred, net	5,482	4,126	3,754
72.40	Obligated balance, start of year	1,855	1,507	1,423
74.40	Obligated balance, end of year	-1,507	-1,423	-1,512
90.00	Outlays	5,830	4,210	3,665

RANGE BETTERMENT FUND
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-5207-0-2-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	959	789	734
11.3	Other than full-time permanent	925	785	707
11.5	Other personnel compensation	109	95	86
11.9	Total personnel compensation	1,993	1,678	1,527
Personnel benefits:				
12.1	Civilian	206	209	190
13.0	Benefits for former personnel	93	65	59
21.0	Travel and transportation of persons	52	36	33
22.0	Transportation of things	44	31	28
23.2	Communications, utilities, and other rent	67	47	43
24.0	Printing and reproduction	1	1	1
25.0	Other services	987	672	611
26.0	Supplies and materials	1,549	1,054	959
31.0	Equipment	61	42	38
32.0	Lands and structures	429	291	265
99.9	Total obligations	5,482	4,126	3,754

FOREST SERVICE RANGE BETTERMENT FUND

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-5207-0-2-302			
Direct:			
Total number of full-time permanent positions	52	42	37
Total compensable workyears:			
Full-time equivalent employment	121	98	86
Full-time equivalent of overtime and holiday hours	5	4	3
Average ES salary	--	--	--
Average GS grade	7.35	8.11	8.28
Average GS salary	18,440	19,000	19,840
Average salary of ungraded positions ...	--	--	--

WORKING CAPITAL FUND

PROGRAM AND FINANCING (in thousand of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-4605-0-4-302				
Program by activities:				
Direct program:				
Forestry related supply and support:				
	Operating costs, funded	66,713	77,429	81,700
	Capital investment, funded	19,780	20,531	21,776
10.00	Total obligations	86,493	97,960	103,476
Financing:				
Offsetting collections from:				
11.00	Federal funds	-101,389	-106,635	-112,069
14.00	Non-Federal sources	-1,014	-3,988	-4,208
21.98	Unobligated balance available, start of year: Fund balance	-23,651	-39,561	-52,224
24.98	Unobligated balance available, end of year: Fund balance	39,561	52,224	65,025
39.00	Budget authority	--	--	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	-15,910	-12,663	-12,801
72.98	Obligated balance, start of year: Fund balance	3,487	28,215	15,552
74.98	Obligated balance, end of year: Fund balance	-28,215	-15,552	-2,751
90.00	Outlays	-40,638	--	--

WORKING CAPITAL FUND
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:	1983 actual	1984 est.	1985 est.
12-4605-0-4-302			
Reimbursable obligations:			
Personnel compensation:			
11.1 Full-time permanent	17,256	17,275	17,690
11.3 Other than full-time permanent	5,567	5,429	5,275
11.5 Other personnel compensation	461	522	551
11.9 Total personnel compensation	23,284	23,226	23,516
Personnel benefits:			
12.1 Civilian	2,669	2,662	2,695
13.0 Benefits for former personnel	281	280	284
21.0 Travel and transportation of persons	466	555	595
22.0 Transportation of things	432	515	552
23.1 Standard level user charges	579	803	713
23.2 Communications, utilities, and other rent	2,378	2,833	3,038
24.0 Printing and reproduction	30	36	38
25.0 Other services	11,630	13,856	14,857
26.0 Supplies and materials	24,737	29,426	31,628
31.0 Equipment	19,944	23,692	25,479
32.0 Lands and structures	37	44	47
33.0 Investments and loans	2	3	3
41.0 Grants, subsidies, and contributions	7	8	9
42.0 Insurance claims and indemnities	3	3	4
44.0 Refunds	14	17	18
99.9 Total obligations	86,493	97,960	103,476

FOREST SERVICE WORKING CAPITAL FUND

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-4605-0-4-302			
Direct:			
Total number of full-time permanent positions	(855)	(823)	(806)
Total compensable workyears:			
Full-time equivalent employment	(1,088)	(1,047)	(1,026)
Full-time equivalent of overtime and holiday hours	(16)	(15)	(15)
Average ES salary	(62,655)	(64,530)	(66,470)
Average GS grade	(8.29)	(8.29)	(8.27)
Average GS salary	(19,560)	(20,180)	(20,060)
Average salary of ungraded positions ...	(17,500)	(18,150)	(18,800)

HIGHLAND SCENIC HIGHWAY
PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-8029-0-7-401				
Program by activities:				
10.00	Total obligations	1	--	--
Financing:				
21.40	Unobligated balance available, start of year	-11	--	--
22.40	Unobligated balance transferred, net ..	9		
39.00	Budget authority	--	--	--
Relation of obligations to outlays:				
71.00	Obligations incurred, net	1	--	--
72.40	Obligated balance, start of year	84	32	--
74.40	Obligated balance, end of year	-32	--	--
90.00	Outlays	53	32	--

HIGHLAND SCENIC HIGHWAY
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-8029-0-7-401				
Direct obligations:				
23.2	Communications, utilities, and other rent	-2	--	--
25.0	Other services	2	--	--
32.0	Lands and structures	1	--	--
99.9	Total obligations	1	--	--

Permanent Appropriations-Working Funds

	1983 Actual	1984 Appropriation Enacted to Date	1985 RPA	1985 Base	1985 Estimate	Inc. (+) or Dec. (-) from Base
				(Dollar in thousands)		
Brush Disposal:						
receipts	\$ 47,844	48,300	64,371	49,536	41,822	-7,714
program level ..	\$ 34,841	41,198	--	--	48,698	--
FTE	925	1,048	--	1,048	803	-245
Licensee Programs:						
Smokey Bear/Woodsy Owl						
receipts	\$ 70	100	100	100	100	--
program level .	\$ 16	45	--	--	77	--
FTE	1	1	--	1	1	--
Restoration of Forest Lands & Improvements:						
receipts	\$ 214	100	100	100	100	--
program level .	\$ 154	156	--	--	160	--
FTE	3	3	--	3	3	--
Roads & Trails for States, National Forest Fund:						
receipts	\$ (29,399)	(44,455)	--	--	(95,615)	--
Timber Purchaser Roads Constructed by the Forest Service:						
receipts	\$ 44,900	50,475	43,088	--	33,903	+33,903
program level .	\$ 17,279	27,914	--	--	34,171	--
FTE	11	12	--	--	8	+8
Timber Salvage Sales:						
receipts	\$ 14,106	12,775	16,614	13,230	16,055	+2,825
program level .	\$ 12,870	13,372	--	--	19,822	--
FTE	422	381	--	381	420	+39
Tongass Timber Supply Fund:						
receipts	\$ 46,028	47,250	80,474	47,860	49,973	+2,113
program level .	\$ 42,291	43,933	--	--	45,822	--
FTE	521	537	--	537	557	+20
TOTAL:						
receipts	\$ 153,162	159,000	204,747	110,826	141,953	+31,127
program level .	\$ 107,451	126,618	--	--	148,750	--
FTE	1,883	1,982	--	1,970	1,792	-178

NOTE: Actual Budget Authority and planned Budget Authority are determined by actual and expected receipts. The program level represents actual or planned obligations and is different from receipts because of carryover balances that are available for expenditure.

Appropriation Summary Statement

To provide for those permanent appropriations which are separate Forest Service activities or which are combined with other Forest Service activities to accomplish common tasks.

Authorities:

P.L. 84-190, Act of August 11, 1916 (Department of Agriculture Appropriations Act), as amended, (16 U.S.C. 490)
Section 6

Disposal of brush and other debris due to timber sales in National
Forests
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 82-327, Act of May 23, 1952, as amended, (16 U.S.C. 580o-2)
Section 3

Forest fire prevention campaign (Smokey Bear)
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 93-318, Act of June 22, 1974, as amended, (16 U.S.C. 580o-3)
Sections 1-6

Woodsy owl anti-pollution campaign
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 85-464, Act of June 20, 1958: (16 U.S.C. 579c)
Section 7

Restoration, improvements and protection of Forest Service lands
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 62-430, Act of March 4, 1913: (16 U.S.C. 501) (Department of Agriculture Appropriations Act)

Forest road and trail improvements--10 percent financed from National
Forest receipts
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 94-588, National Forest Management Act of 1976, October 22, 1976:
(16 U.S.C. 472a(i))
Section 14(i)

Timber purchaser roads constructed by the Forest Service
(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 94-588, National Forest Management Act of 1976, October 22, 1976:

(16 U.S.C. 472a(h))

Section 14(h)

Timber salvage fund for harvesting insect-infested, dead and damaged trees

(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

P.L. 96-487, Alaska National Interest Lands Conservation Act, December 2, 1980:

(16 U.S.C. 539d)

Section 705a

Tongass timber supply fund to maintain timber at specified level on Tongass National Forest

(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date specified.

Brush Disposal

Objective: To protect the natural resources of the National Forests for public use by reducing logging slash from timber sale areas.

Program description: As part of a timber sale, collections may be required from the timber purchaser for the Forest Service to complete brush disposal tasks to reduce fire hazards, prepare the site for forest regeneration, and allow for recreational user access.

Timber cutting usually increases the fire hazard because of dry fuel increase in the form of logging slash. This slash may also:

1. Impair reforestation.
2. Contribute to the buildup of insect populations.
3. Cause damage to stream channels.
4. Degrade esthetics of the forest environment.

When disposal of brush and other debris is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris resulting from timber sale operations. When economical and expedient, the work is performed by the timber purchaser. When not done by the purchaser, it is done by the Federal Government, using deposits to cover costs of the work as authorized under Section 6 of the Act of April 24, 1950 (16 U.S.C. 490).

The effect of timber cutting and the manner of treating slash varies widely among geographic regions. Brush disposal may be accomplished in several ways such as crushing, chipping or burning. Combinations of these are often used.

<u>Accomplishments:</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
thousand acres	496	644	406
<u>Decrease for 1985:</u>			
	<u>1985</u>	<u>1985</u>	<u>Decrease</u>
	<u>Base</u>	<u>Estimate</u>	
Brush Disposal.....\$	49,536	41,822	-7,714
FTE	1,048	803	-245

A decrease of \$7,714,000 is directly linked to the reduced amount of timber harvest activities for the past two years. The funding level of \$41,822,000 is needed to treat the timber sale areas where harvesting has been completed and where the fuel created by the sales is ready for disposal. The unit cost of brush disposal work is expected to increase from \$75 per acre in fiscal year 1984 to \$103 per acre in fiscal year 1985. This increase is due to more difficult areas being treated and to the reduced use of fuelwood cutting prior to treatment. This reduction has increased the amounts of fuels to be treated and greatly reduced the number of acres that can be treated at one time.

This funding level includes a decrease of \$14,000 associated with improved efficiencies in administrative support activities and \$63,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salary and benefits	-4,980
Travel	-95
Transportation of things	-508
Supplies, materials and equipment	-814
Other contractual services	-1,317
Total	-7,714

Licensee Program-Smokey Bear and Woodsy Owl

Program description: Fees for the use of characters by private enterprises are collected under regulations formulated by the Secretary and are available as follows:

1. Smokey Bear--for furthering the nationwide forest fire prevention campaign (16 U.S.C. 580o-2).
2. Woodsy Owl--for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (16 U.S.C. 580o-3).

No change for 1985.

Restoration of Forest Lands and Improvements

Program description: Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance or improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost to the Government of completing such work on Forest Service lands. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement. (Act of June 20, 1958, 16 U.S.C. 579c).

No change for 1985.

Roads and Trails for States, National Forest Fund

Since 1982, the permanent appropriation of 10 percent of National Forest Receipts pursuant to the Act of March 4, 1913 (16 U.S.C. 501) has been transferred to the General Fund to offset appropriations. The amounts shown in the table at the head of this section are actual for 1983 and 1984 and estimated (based on 1984 receipts) for 1985.

Timber Purchaser Roads Constructed by the Forest Service (PEP)

Objective: To construct, through a process of competitive bidding, timber sale roads for small business purchasers who elect to have the roads constructed by the Forest Service.

Program Description: This program, referred to as the Purchaser Election Program (PEP), is a part of the financing which makes up the total Forest Service annual road program. In order for a road to qualify, construction costs exceeding \$20,000 must be included in the timber sale contract and the purchaser must be classified as a small business operator. The PEP program is available to all locations in the National Forest System except the State of Alaska. Authority cited at 16 U.S.C. 472a(i) makes funds available from timber receipts.

Outputs (miles) associated with PEP are unknown until after sale award. All road construction mileage outputs associated with timber sale contracts are included in the Timber Purchaser Road Construction Program.

Costs differ between Purchaser Credit and Purchaser Election funds only by the increase caused by including Davis-Bacon wage rate requirements in Purchaser Election funds.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Timber purchaser roads constructed by the Forest Service			
\$	--	33,903	+33,903
FTE	--	8	+8

An increase of \$33,903,000 is based on the past several years' experience with this fund. The use of these funds has dropped off in the past 2 years, especially in FY 1983. The Forest Service has no control on demand of these funds since the small business purchasers can elect to require the Forest Service to construct qualifying roads.

Object class information:

Salary and benefits	+212
Travel	+4
Lands and structures	+31,317
Other contractual services	+2,370
Total	+33,903

Timber Salvage Sales

Objective: To salvage insect-infested, dead, damaged or down timber, and to remove associated trees for stand improvement.

Program description: A component of the timber sales program is the salvage of insect-infested, dead, damaged or down timber. A separate permanent appropriation for timber salvage was established for this program as a result of the National Forest Management Act of 1976, 16 U.S.C. 472a(h). A portion of the receipts from timber salvage sales are deposited in this account and are used to prepare and administer future salvage sales. Separate appropriations of \$3,000,000 each in fiscal years 1977 and 1979 have been used as "seed money" to accelerate the establishment of timber salvage sales as a self-sustaining permanent appropriation. A portion of the sales prepared with these funds is set aside for preferential award to small business firms with 25 or fewer employees.

	FY 1983 <u>Actual</u>	FY 1984 <u>Estimate</u>	FY 1985 <u>Estimate</u>
	(Billion Board Feet)		
Salvage volume from sale adminis- tration and management	.8	1.0	1.1
Timber salvage sale fund volume	<u>.5</u>	<u>.5</u>	<u>.6</u>
Total salvage volume	1.3	1.5	1.7

Increase for 1985:

	1985 <u>Base</u>	1985 <u>Estimate</u>	<u>Increase</u>
Timber Salvage Sales ..\$	13,230	16,055	+2,825
FTE	381	420	+39

An increase of \$2,825,000 provides for the advanced sale preparation, support, and timber sale transportation system development and maintenance work necessary to prepare the additional 64 million board feet of salvageable material over the 522 million board feet prepared in fiscal year 1984. Salvage sales made in previous years will be fully administered.

This funding level includes a decrease of \$6,000 associated with improved efficiencies in administrative and support activities and \$22,000 associated with a phased reduction of positions in grade GS/GM 11-15.

Object class information:

Salary and benefits	+902
Travel	+3
Transportation of things	+156
Supplies, materials and equipment	+140
Other contractual services	+1,589
Lands and structure	+35
Total	+2,825

Tongass Timber Supply Fund

Objective: To maintain the timber supply from the Tongass National Forest at a rate of 4.5 billion board feet per decade as provided by 16 U.S.C. 539d.

Program description: Funds will provide for timber sale preparation and administration including protective measures for wildlife, fisheries, and soil and water resources. The level of timber management planning, silvicultural examination and investments in timber stand improvements, reforestation, roads, facilities, and research are commensurate with sustaining timber supply at 4.5 billion board feet per decade.

The 1985 funding level will support a timber sale offering of 460 million board feet. Facility construction is shown on the following table:

FY 1985 TTSF Facilities Construction Projects

<u>Tongass Area</u>	<u>Project</u>	<u>Amount</u> (in thousand)
Forest-wide	Planning, Survey and Design of outyear project	\$ 557
Chatham	Hoonah Administrative Site Construction <u>1/</u>	2,956
Stikine	Wrangel Marine Facilities	500
Chatham	False Island Work Center Dock and Fuel Storage	350
Stikine	Petersburg Warehouse	<u>200</u>
	Total Facilities Construction	\$ 4,563

1/ The Hoonah project includes eight duplex housing units which will exceed the \$65,000 cost limitation specified by the FY 1984 Interior and Related Agencies Appropriations Act. The cost per unit is estimated to be \$109,800. Units will have a total of 1,185 sq. ft. with three bedrooms. The per unit cost would exceed the limitation because of: (1) inflation since this limitation was established in 1979, (2) remoteness of the building sites, (3) severity of climatic conditions, and (4) shortness of the construction season. The units will be basic and space efficient; but because of their remoteness and the severe climate, they will be well constructed of durable, energy efficient materials.

Increase for 1985:

	<u>1985</u> <u>Base</u>	<u>1985</u> <u>Estimate</u>	<u>Increase</u>
Tongass Timber Supply Fund	\$ 47,860	49,973	+2,113
FTE	537	557	+20

Road construction and reconstruction totals \$11,140,000 and includes 43 miles of advanced roading for access to special marginal and technologically marginal stands. Multiple-use coordination and support costs are reduced by \$485,000 for wildlife and fisheries, recreation, and landline location activities because of a basic level of timber sale preparation work.

The \$322,000 increase in forestry research will continue to emphasize the essential information on attainable growth rates, yield predictions, and the applicability of partial cutting and other harvesting practices on sensitive areas without adverse impacts on other resources.

The \$765,000 for the FY 1985 level in reforestation will accomplish the 550 acres. The increase of \$831,000 in timber stand improvement will accomplish an additional 3,176 acres of release and weeding over the 1984 program.

Funding for this special account is derived from receipts collected by the Secretary of Agriculture and the Secretary of the Interior.

The 1985 program is \$49,973,000. This level reflects a continuation of the current program level.

This funding level includes a decrease of \$21,000 associated with improved efficiencies in administrative activities and \$70,000 associated with a phased reduction of position in grades GS/GM 11-15.

Object class information:

Salary and benefits	+400
Travel	+115
Transportation of things	+106
Supplies, materials and equipment	+548
Other contractual services	+944
Total	+2,113

Tongass Timber Supply Fund
Three - year display
(Dollars in thousands)

		<u>1983</u>	<u>1984</u>	<u>1985</u>	
Timber Sales					
Preparation <u>1/</u>	\$	7,410	8,844	11,177	
MMBF		484	450	460	
Timber Sales					
Administration	\$	2,870	3,519	4,363	
Timber Support	\$	2,270	2,785	2,350	
Reforestation	\$	1,818	956	765	
Acres		1,382	1,007	550	
Timber Stand					
Improvement	\$	2,556	3,187	4,018	
Acres		8,650	7,700	10,876	
Facilities					
Construction	\$	4,879	3,761	4,563	
Road Construction	\$	11,952	14,105	11,140	
Miles		30	41	43	
Engineering					
Support	\$	10,371	8,419	9,601	
Research	\$	<u>1,902</u>	<u>1,674</u>	<u>1,996</u>	
TOTAL, Tongass					
Timber Supply					
Fund	\$	46,028	47,250	49,973	
Purchaser					
Construction <u>2/</u>	\$	(22,881)	(52,770)	(46,114)	
Miles		160	219	230	
Ref/TSI (KV) <u>3/</u>	\$	665	413	1,064	
Acres		<u>700</u>	<u>978</u>	<u>1,445</u>	Ref. Acres
GRAND TOTAL	\$	46,693	47,663	51,037	

1/ Includes Timber Management Planning and Silvicultural Examinations.

2/ Timber purchaser road construction is an off-budget line item and is not reflected in totals. Parenthesized figures indicate dollar limitations set for purchaser construction, which are reflected in the construction appropriation limitation.

3/ Not included in the Tongass Timber Supply Fund appropriation but under K-V Funds.

PERMANENT APPROPRIATIONS-PAYMENT FUNDS

	<u>1983 Actual</u>	<u>1984 Estimate</u>	<u>1985 Base</u>	<u>1985 Estimate</u>	Inc. (+) or Dec. (-) <u>from 1984</u>
Payment to Minnesota	711	711	711	711	--
Payments to Counties, National Grasslands	10,329	10,878	10,878	13,189	+2,311
Payments to School Fund Arizona	16	--	--	--	--
Payments to States, National Forests Fund	<u>132,601</u>	<u>192,711</u>	<u>192,711</u>	<u>270,600</u>	<u>+77,889</u>
Total Payments	143,657	204,300	204,300	284,500	+80,200

Authorities:

P.L. 71-539, Shipstead-Nolan Act of July 10, 1930, as amended by P.L. 95-495,
(16 U.S.C. 577G)
Section 5

Payment to Minnesota for land purchase in Superior National Forest
(05-96) 12-9921 852 SAGR HAGR

Such sums from National Forests Fund equal to three-fourths of 1 percent of the
fair appraised value of the lands, no expiration date specified.

P.L. 75-210, Bankhead-Jones Farm Tenant Act, July 22, 1937,
as amended, (7 U.S.C. 1012)
Section 33

Payments to counties where National Grasslands are located
(05-96) 12-9921 852 SAGR HAGR

Such sums from receipts equal to 25 percent of net revenues, no expiration
date specified.

P.L. 61-219, Act of June 20, 1910 (36 Stat. 573).
Section 24

Payments to school funds: Arizona
(05-96) 12-9921 652 SAGR HAGR SENR HIIA

Such sums from National Forests Fund equal to the percent of school land
acreage as compared to National Forest acreage applied to the gross receipts
collected in the State. No expiration date specified.

P.L. 60-136, Act of May 23, 1908 (Department of Agriculture Appropriations Act), as
amended, (16 U.S.C. 500)

Payments to States, National Forests Fund.
(05-96) 12-9921 852 SENR HAGR SAGR HIIA

25 percent of monies received, no expiration date specified.

Payments to Minnesota

Objective: Provide a special annual payment to the State of Minnesota for lands in the Boundary Waters Canoe Area as specified by law.

Program description: At the close of each fiscal year the State of Minnesota is paid 75 percent of 1 percent of the appraised value of certain Superior National Forest lands in the counties of Cook, Lake, and St. Louis for distribution to these counties (16 U.S.C. 577g).

Payments to Counties, National Grasslands

Objective: Provide an annual payment to the counties in which the National Grasslands and Land Utilization prospects are located for the funding of schools and roads.

Program description: Of the revenues received for the use of National Grasslands, 25 percent is paid to the counties in which such land is situated for school and road purposes (7 U.S.C. 1012).

Payments to School Funds, Arizona

Objective: Provide an additional payment to the State of Arizona over and above that received from the National Forest Twenty-Five Percent Fund, for the funding of schools for the loss in income from lands due, but not yet selected, as authorized under the Act of June 20, 1910.

Program description: The State of Arizona is paid an additional share of National Forest receipts to be used for school purposes (36 Stat. 562).

Payments to States, National Forest Fund

Objective: Provide an annual payment to the States from National Forest receipts to be used for school and road purposes.

Program description: With few exceptions, 25 percent of all monies received from the National Forests during any fiscal year is paid to the States in which the forests are located, for the benefit of public schools and public roads of the county or counties in which such National Forests are situated (16 U.S.C. 500).

The National Forest Management Act of 1976 (P.L. 94-588, October 22, 1976), has expanded the term "monies received" to include all collections from sale area improvement activities plus "all amounts earned or allowed any purchaser of National Forest timber and other forest products within such State... for construction of roads." The amount of this appropriation varies each year in direct proportion to National Forest receipts, sale area improvement collections, and timber purchaser construction during the previous fiscal year.

The Act was further amended by the Wood Residue Utilization Act of 1980 (Public Law 96-554) which expanded the term "monies received" to include any wood residue credit applied under the Act as well as from sales of wood residues, less the sum of any residue credit applied, plus any costs incurred by the Forest Service in processing and storing such residues.

The Payments to States Budget Authority, as shown in the Budget Appendix, was calculated incorrectly. The Budget Authority should have been \$325,000,000 instead of \$306,000,000. The FY 1985 estimate of \$284,500,000 assumes proposed legislation that would change the program from a receipts sharing to a tax equivalency basis. The FY 1985 program reflects an estimated savings of \$40.5 million due to the proposed legislation.

FOREST SERVICE PERMANENT APPROPRIATIONS
PROGRAM AND FINANCING (in thousand of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9922-0-2-302				
Program by activities:				
Direct program:				
	1. Expenses, brush disposal	34,841	41,198	48,698
	2. Licensee programs, Forest Service .	16	45	77
	3. Restoration of forest lands and improvements	154	156	160
	4. Timber purchaser roads constructed by Forest Service	17,279	27,914	34,171
	5. Timber salvage sales	12,870	13,372	19,822
	6. Tongass timber supply fund	42,291	43,933	45,822
	Total direct program	107,451	126,618	148,750
	Reimbursable program: Other	10	16	14
10.00	Total obligations	107,461	126,634	148,764
Financing:				
11.00	Federal funds	-1	-2	-2
14.00	Non-Federal sources	-9	-14	-12
17.00	Recovery of prior year obligations	-1,749	--	--
21.40	Unobligated balance available, start of year	-56,525	-103,984	-136,366
24.40	Unobligated balance available, end of year	103,984	136,366	129,569
60.00	Budget authority (appropriation) (permanent, indefinite, special funds)	153,162	159,000	141,953
Relation of obligations to outlays:				
71.00	Obligations incurred, net	107,451	126,618	148,750
72.40	Obligated balance, start of year	52,458	45,099	17,119
74.40	Obligated balance, end of year	-45,099	-17,119	-17,813
78.00	Adjustment in unexpired accounts	-1,749	--	--
90.00	Outlays	113,062	154,598	148,056
Distribution of budget authority by account:				
	Expenses, brush disposal	47,844	48,300	41,822
	Licensee programs, Forest Service	70	100	100
	Restoration of forest lands and improvements .	214	100	100
	Timber purchaser roads constructed by Forest Service	44,900	50,475	33,903
	Timber salvage sales	14,106	12,775	16,055
	Tongass timber supply fund	46,028	47,250	49,973

FOREST SERVICE PERMANENT APPROPRIATIONS
PROGRAM AND FINANCING (in thousand of dollars)

Identification code:	1983 actual	1984 est.	1985 est.
12-9922-0-2-302			
Distribution of outlays by account:			
Expenses, brush disposal	32,468	50,302	48,470
Licensee programs, Forest Service	125	55	77
Restoration of forest lands and improvements .	144	190	160
Timber purchaser roads constructed by Forest Service	23,983	34,083	34,012
Timber salvage sales	10,062	16,327	19,730
Tongass timber supply fund	46,280	53,641	45,607

FOREST SERVICE PERMANENT APPROPRIATIONS
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:	1983 actual	1984 est.	1985 est.
12-9922-0-2-302			
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	26,722	28,723	26,810
11.3 Other than full-time permanent	9,355	10,561	9,629
11.5 Other personnel compensation	687	960	800
11.8 Special personal services payments ..	2	3	2
11.9 Total personnel compensation	36,766	40,247	37,241
Personnel benefits:			
12.1 Civilian	9,230	9,322	8,626
13.0 Benefits for former personnel	1,400	1,414	1,308
21.0 Travel and transportation of persons	3,849	3,887	7,168
22.0 Transportation of things	1,196	1,208	2,228
23.1 Standard level user charges	1,230	1,680	1,516
23.2 Communications, utilities, and other rent	2,844	2,872	5,297
24.0 Printing and reproduction	280	283	522
25.0 Other services	15,713	20,716	26,660
26.0 Supplies and materials	3,714	3,751	5,918
31.0 Equipment	3,876	3,915	6,356
32.0 Lands and structures	27,289	37,259	45,792
41.0 Grants, subsidies, and contributions	21	21	39
42.0 Insurance claims and indemnities	43	43	79
99.0 Subtotal direct obligations	107,451	126,618	148,750
99.0 Reimbursable obligations: Other services	10	16	14
99.9 Total obligations	107,461	126,634	148,764

FOREST SERVICE PERMANENT APPROPRIATIONS

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-9922-0-2-302			
Direct:			
Total number of full-time permanent positions	1,378	1,424	1,288
Total compensable workyears:			
Full-time equivalent employment	1,883	1,982	1,792
Full-time equivalent of overtime and holiday hours	116	123	115
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800

FOREST SERVICE PERMANENT APPROPRIATIONS
PROGRAM AND FINANCING (in thousand of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9921-0-2-852				
Program by activities:				
	1. Payment to Minnesota	711	711	711
	2. Payments to counties, National Grasslands	10,329	10,878	13,189
	3. Payments to school funds, Arizona ...	16	---	---
	4. Payments to State, National Forests fund	132,600	192,711	292,100
10.00	Total obligations (object class 41.0)	143,656	204,300	306,000
Financing:				
60.00	Budget authority (appropriation) (permanent indefinite, special fund)	143,656	204,300	306,000
Relation of obligations to outlays:				
71.00	Obligations incurred, net	143,656	204,300	306,000
90.00	Outlays	143,656	204,300	306,000
Distribution of budget authority by account:				
	Payment to Minnesota	711	711	711
	Payment to counties, National Grasslands	10,329	10,878	13,189
	Payment to school funds, Arizona	16	---	---
	Payment to States, National Forests Fund	132,600	192,711	292,100
Distribution of outlays by account:				
	Payment to Minnesota	711	711	711
	Payment to counties, National Grasslands	10,329	10,878	13,189
	Payment to school funds, Arizona and New Mexico	16	---	---
	Payment to States, National Forests Fund	132,600	192,711	292,100

FOREST SERVICE PERMANENT APPROPRIATIONS
PROGRAM AND FINANCING (in thousand of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9921-2-2-852				
10.00	Total obligations (object class 41.0)	---	---	-21,500
	Financing:			
40.00	Budget authority (appropriation)	---	---	-21,500
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	---	---	-21,500
90.00	Outlays	---	---	-21,500

TRUST FUNDS

	1983 <u>Actual</u>	1984 Appropriation <u>Enacted to Date</u>	1985 <u>RPA</u>	1985 <u>Base</u>	1985 <u>Estimate</u>	Inc. (+) or Dec. (-) <u>from Base</u>
Cooperative Work						
Knutson-Vandenberg						
(KV):						
Reforestation	\$ 66,300	68,900	125,668	70,116	70,764	+648
thousand acres ...	169	215	---	215	216	+1
FTE	1,009	1,245	---	1,245	1,260	+15
Timber Stand						
Improvement	\$ 20,350	21,900	41,890	22,287	19,326	-2,961
thousand acres ...	127	142	---	142	132	-10
FTE	309	396	---	396	346	-50
Other	\$ 30,200	27,200	12,744	27,681	30,639	+2,958
FTE	725	491	---	491	548	+57
Budget Authority						
subtotal	\$ 116,850	118,000	180,302	120,084	120,729	+645
Receipts subtotal.	\$ 173,092	118,000	---	---	120,729	---
FTE	2,043	2,132	---	2,132	2,154	+22
Cooperative Work-Other:						
Budget Authority .	\$ 35,562	32,000	48,512	32,629	32,541	-88
receipts	\$ 35,561	32,000	---	---	32,541	---
FTE	605	643	---	643	641	-2
Total, Cooperative Work						
Budget Authority .	\$ 152,412	150,000	228,814	152,713	153,270	+557
receipts	\$ 208,653	150,000	---	---	153,270	--
FTE	2,648	2,775	---	2,775	2,795	+20

1/ Does not include \$17,525,000 which was authorized but not spent in FY 1983 due to reduced harvest rates in FY 1982 and early 1983.

Appropriation Summary Statement

Funds are received and deposited in trust from States, counties, timber sale operators, individuals, associations, and others. These funds are expended by the Forest Service as authorized by law and the terms of the applicable trust agreements. The work consists of protection and improvement of the National Forest System, work performed for the National Forest users, research investigations, reforestation, and administration of private forest lands.

Authorities: Various Public Laws including the Act of June 30, 1914 (Cooperative Funds Act), as amended and 7 U.S.C. 2269; 16 U.S.C. 498, 572, 537, 572a, and 1643a. Cooperative work (trust fund) for other activities-investigation, protection and improvement of National Forests
(05-96) 12-8028 302 SAGR HAGR

P.L. 71-319, Act of June 9, 1930 (Knutson-Vandenberg Act), as amended (16 U.S.C. 576b)

Section 3

Funds deposited by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stands of timber on areas cutover by the purchaser.

(05-96) 12-8028-302 SAGR/HAGR
No expiration date.

Cooperative Work, Knutson-Vandenberg

Objective: To improve the future productivity of the renewable resources on timber sale areas.

Program description: Fund deposits by timber sale purchasers are used primarily for reforestation, timber stand improvement, and other resource activities. Accomplishments under this program are reported under the National Forest System appropriation within the applicable activity.

Reforestation K-V

Objective: To reforest timber sale areas and ensure the orderly development of timber production on National Forest System lands.

Program description: The Knutson-Vandenberg Law (K-V), as amended, provides that a portion of timber sale receipts may be used for needed reforestation work on timber sale areas. Funds to accomplish work are deposited into a Trust Fund.

About 60 percent of the total reforestation work needed is expected to be funded from K-V during the next few years.

Increase for 1985:

	1985 <u>Base</u>	1985 <u>Estimate</u>	<u>Increase</u>
Reforestation K-V \$	70,116	70,764	+648
FTE	1,245	1,260	+15

An increase of \$648,000 is anticipated as a result of increased harvesting at an average cost of \$328 per acre. This compares to the \$320 per acre figure for 1984. The \$70,764,000 in the proposed budget level will be used to accomplish 216,300 acres of reforestation.

This funding level includes a decrease of \$21,000 associated with improved efficiencies in administrative support activities and \$76,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries and benefits	+316
Travel	+6
Transportation of things	+5
Supplies, materials and equipment	+80
Land and structures	+24
Other contractual services	+217
Total	+648

Timber Stand Improvement K-V

Objective: To improve timber growth and product quality on timber sale areas by thinning and release treatments of the residual stands.

Program description: The Knutson-Vandenberg Law (K-V), as amended, provides that a portion of timber sale receipts may be used for timber stand improvement work. This work is financed from a trust fund in the same manner of financing as is provided for reforestation.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Timber Stand Improvement (KV).....\$	22,287	19,326	-2,961
FTE	396	346	-50

A decrease of \$2,961,000 will accomplish the 132,000 acres, which is 10,000 less acres than FY 1983. Average cost per acre estimated for the 1985 program is \$146 per acre as compared to \$154 per acre in 1984. The budget level of \$19,326,000 for the K-V stand improvement program will be used to treat 132,000 acres.

Most of the 132,000 acres of stand improvement work will be contracted for the release of plantations.

This funding level includes a decrease of \$6,000 associated with improved efficiencies in administrative support activities and \$21,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries and benefits	-1,055
Travel	-36
Transportation of things	-29
Supplies, materials and equipment	-457
Land and structures	-135
Other contractual services	-1,249
Total	-2,961

Other K-V

Objective: To protect and improve all other resource values on timber sale areas in conjunction with timber improvement activities.

Program description: The Knutson-Vandenberg Law (K-V), as amended, provides that a portion of timber sale receipts may be used for protecting and improving the future productivity of the renewable resources of the forest land on sale areas including sale area improvements, maintenance and construction of soil and water protection measures, and wildlife habitat improvements.

Timber sales sold since the Act was amended (1976) are now being harvested and collections for other resource work on timber sale areas have increased. Emphasis will be on stream channel restoration and enhancement for resident and anadromous fish and habitat improvement for game and non-game species in accordance with approved State Comprehensive Plans. Watershed improvements will be designed to maintain or improve soil productivity and water quality.

Increase for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Increase</u>
Other KV.....\$	27,681	30,639	+2,958
FTE	491	548	+57

An increase of \$2,958,000 in 1985 represents a program increase as a result of increased harvest. The 1985 program will reflect an activity in line with the 1984 collections which are expected to be increased. These are the wildlife, fish, soil, water and other resource activities which have been designed to mitigate the effects of the harvest of a stand of trees.

This funding level includes a decrease of \$9,000 associated with improved efficiencies in administrative support activities and \$33,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries and benefits	+1,203
Travel	+33
Transportation of things	+27
Supplies, materials and equipment	+421
Other contractual services	+124
Communication, utilities and other rents	+1,150
Total	+2,958

Cooperative Work, Other

Objective: Deposits received from cooperators are used for research investigations and for protection and improvement of the National Forest System as authorized by the trust agreement.

Program descriptions:

1. Construction and Maintenance of Roads, Trails and Other Improvements. Under the Acts of June 30, 1914 (16 U.S.C. 498), March 3, 1925, April 24, 1950 (16 U.S.C. 572) and October 13, 1964 (16 U.S.C. 537), deposits for cooperative work are accepted from State and local government agencies, associations, Federal timber purchasers, users of roads, and others. These deposits are used for the construction and reconstruction maintenance of roads, trails, and other improvements. Deposits received for wildlife habitat improvement for States from their hunting and fishing fees are included in this activity.
2. Protection of National Forest and Adjacent non-Federal Lands. The Act of June 30, 1914 (16 U.S.C. 498), authorizes the acceptance of contributions for the protection of the National Forests and the Act of March 3, 1925, as amended by Section 5 of the Act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of deposits for the protection of non-Federal lands in or near the National Forests. The arrangement for the protection of private lands from fire helps both parties since there are millions of acres of non-Federal forest land intermingled with Federal ownership on the National Forests. The lands in non-Federal ownership are usually in small tracts. It would be uneconomical for the owner to set up a fire control organization for the protection of his land. The advantage to the Government is a cost savings since in many cases it would be necessary to suppress the fires on the non-Federal land anyway without reimbursement in order to protect the adjoining Federal land.
3. Scaling. Under provisions of the Act of April 24, 1950 (16 U.S.C. 572) and of Section 210 of the Act of September 21, 1944 (16 U.S.C. 572a), acceptance of deposits from timber purchasers for scaling services is authorized. Such arrangements are established only when requested by the operator and when the operator pays the extra cost of such services, either in advance or through reimbursement under appropriate payment guarantees.
4. Research Investigations. The Act of June 30, 1914 (16 U.S.C. 498), and the Act of June 30, 1978 (16 U.S.C. 1643) cited as the Forest and Rangeland Renewable Resources Research Act of 1978, authorizes the acceptance of deposits for forestry research. Deposits are received from State and other public agencies, and from industrial, association and other private agencies to finance research projects of mutual interest and benefit to both parties. The deposits may be made either in a single sum or on a continuing basis, and may either partially or wholly cover the cost of the research. The cooperative research projects may involve any aspect of forestry and vary widely as to scope and duration.

5. Administration of non-Federal Lands. The Act of March 3, 1925, as amended by Section 5 of the Act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of deposits for the administration of non-Federal lands. These deposits are made by non-Federal owners having land intermingled with or adjacent to National Forests who wish these lands managed in accordance with good forest management practices. Their holdings are usually too small to warrant the employment of professional foresters to administer such tracts. The advantages to the Government include the avoidance of possible high fire hazard areas resulting from improper cutting practices, the elimination of the necessity of precisely marking the boundaries of the private land and additional private forest land handled under proper forest practices.

6. Reforestation (private lands). The Act of March 3, 1925, as amended by Section 5 of the Act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of deposits for reforestation of non-Federal lands situated within or near a National Forest. This work is limited to areas of non-Federal land within a planting project on the National Forests or to areas in which certain civic and other public-spirited organizations have taken an interest.

Decrease for 1985:

	<u>1985 Base</u>	<u>1985 Estimate</u>	<u>Decrease</u>
Cooperative Work, Other..... \$	32,629	32,541	-88
FTE	643	641	-2

A decrease of \$88,000 reflects the expected decrease in cooperative deposits by timber purchasers for road maintenance.

This funding level includes a decrease of \$8,000 associated with improved efficiencies in administrative support activities and \$37,000 associated with a phased reduction of positions in grades GS/GM 11-15.

Object class information:

Salaries and benefits	-58
Travel	-3
Transportation of things	-5
Supplies, materials and equipment	-7
Other contractual services	-15
Total	-88

REFORESTATION TRUST FUND

Appropriation Summary Statement

The establishment of a trust fund to be used for reforestation and timber stand improvement when annual appropriated funds are unavailable to meet total needs of fiscal year programs.

Authorities:

P.L. 96-451, Act of October 14, 1980, as amended: (16 U.S.C. 1606 a(d) and (e).
Section 303

Establishment of Reforestation Trust Fund to be held by the Secretary of Treasury. Funds to be invested and provided to the Secretary of Agriculture based on an estimated fiscal year need, necessary to accomplish the reforestation and treatment of acreage program.

Authorization: \$30,000,000 annually, available until expended. (Permanent indefinite)

Objective: To assure that the reforestation and timber stand improvement program is maintained at a level that will eliminate existing reforestation backlog by 1985.

Program description: Necessary funds are to be used to accomplish the reforestation and timber stand improvement program as described in the reforestation and stand improvement section of the National Forest System Appropriation.

The following table summarizes planned activity through 1985:

	<u>1983</u>	<u>1984</u>	<u>1985</u>
	(Dollars in thousands)		
Start of year balance	\$ 106,439	46,027	14,276
Revenue	43,588	34,180*	31,615
Total Available	<u>\$ 150,027</u>	<u>80,207</u>	<u>45,891</u>
Planned expenditures/outlays	\$ -104,000	-65,931	-45,891
Reforestation/Stand Improvement Program	\$ --	--	--
Treasury outlay <u>1/</u>	<u>\$ --</u>	<u>--</u>	<u>--</u>
End of year balance	\$ 46,027	14,276	-0-

* Estimated

1/ Represents the reduction in interest earnings from securities redeemed.
(Net value of discounted vs. premiums earned.)

TRUST FUNDS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9973-0-7-302				
Program by activities:				
Direct program				
	Construction and maintenance of roads and trails	22,895	19,030	17,361
	Construction and maintenance of other improvements	2,783	1,640	1,498
	Protection of national forest and adjacent private land	42,986	7,560	6,896
	Sale area betterment and scaling	84,693	130,750	119,287
	Research investigations	1,216	1,210	1,104
	Administration	72	60	56
	Reforestation	60	70	65
	Gifts and donations	-30	90	90
	Total direct program	154,675	160,410	146,357
	Reimbursable program	32	46	40
10.00	Total obligations	154,707	160,456	146,397
Financing:				
Offsetting collections from:				
11.00	Federal funds: Revenue	-30	-43	-38
14.00	Non-Federal sources	-2	-3	-2
17.00	Recovery of prior year obligations ...	-1,125	--	--
Unobligated balances available, start of year:				
21.40	Treasury balance	-282,132	-298,444	-288,150
21.40	U.S. securities (par)	-145	-220	-194
Unobligated balance available, end of year:				
24.40	Treasury balance	298,444	288,150	295,153
24.40	U.S. securities (par)	220	194	194
39.00	Budget authority	169,937	150,090	153,360
40.00	Appropriation	--	90	90
60.00	Budget authority (appropriation) (permanent indefinite)	169,937	150,000	153,270
Relation of obligations to outlays:				
71.00	Obligations incurred, net	154,675	160,410	146,357
72.40	Obligated balance, start of year	21,883	59,143	69,599
74.40	Obligated balance, end of year	-59,143	-69,599	-62,850
78.00	Adjustment in unexpired accounts	-1,125	--	--
90.00	Outlays	116,290	149,954	153,106

TRUST FUNDS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
12-9973-0-7-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	36,359	51,930	50,515
11.3	Other than full-time permanent	12,534	17,887	17,344
11.5	Other personnel compensation	2,171	3,098	2,825
11.8	Special personal services payments .	13	19	15
11.9	Total personnel compensation	51,077	72,934	70,699
Personnel benefits:				
12.1	Civilian	7,902	10,118	9,818
13.0	Benefits for former personnel	1,545	1,944	1,884
21.0	Travel and transportation of persons	1,207	1,514	1,297
22.0	Transportation of things	966	1,207	1,034
23.1	Standard level user charges	403	544	497
23.2	Communications, utilities, and other rent	4,183	5,262	4,518
24.0	Printing and reproduction	132	167	143
25.0	Other services	68,414	42,986	36,114
26.0	Supplies and materials	11,704	14,712	12,614
31.0	Equipment	2,566	3,224	2,762
32.0	Lands and structures	4,119	5,177	4,445
41.0	Grants, subsidies, and contributions	26	80	69
42.0	Insurance claims and indemnities	108	136	116
44.0	Refunds	323	405	347
99.0	Subtotal, direct obligations	154,675	160,410	146,357
Reimbursable obligations:				
99.0	Other Services	32	46	40
99.9	Total obligations	154,707	160,456	146,397

FOREST SERVICE TRUST FUNDS

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
12-9973-0-7-302			
Direct:			
Total number of full-time permanent positions	1,915	2,002	2,015
Total compensable workyears:			
Full-time equivalent employment	2,648	2,775	2,795
Full-time equivalent of overtime and holiday hours	87	87	85
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800

REFORESTATION TRUST FUNDS
PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
20-8046-0-7-302				
Program by activities:				
	Direct program	88,320	81,611	45,891
	Reimbursable program	14	--	--
10.00	Total obligations	88,334	81,611	45,891
Financing:				
Offsetting collections from:				
11.00	Federal funds	-5	--	--
14.00	Non-Federal sources	-9	--	--
21.40	Unobligated balance, start of year ...	--	-61,707	-14,276
24.40	Unobligated balance available, end of year	61,707	14,276	--
60.00	Budget authority (appropriation) (permanent)	150,027	34,180	31,615
Relation of obligations to outlays:				
71.00	Obligations incurred, net	88,320	81,611	45,891
72.40	Obligated balance, start of year	--	25,890	41,184
74.40	Obligated balance, end of year	-25,890	-41,184	-6,323
90.00	Outlays	62,430	66,317	80,752

REFORESTATION TRUST FUNDS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1983 actual	1984 est.	1985 est.
20-8046-0-7-302				
Direct obligations:				
Personnel compensation:				
11.1	Permanent positions	21,958	14,120	7,616
11.3	Positions other than permanent	10,661	7,203	3,760
11.5	Other personnel compensation	1,735	1,116	1,573
11.8	Special personal services payments ..	2	2	1
11.9	Total personnel compensation	34,356	22,441	12,950
Personnel benefits:				
12.1	Civilian	4,231	2,764	1,550
13.0	Benefits for former personnel	522	592	400
21.0	Travel and transportation of persons	919	1,042	730
22.0	Transportation of things	732	830	230
23.1	Standard level user charges	138	157	70
23.2	Rent, communications, and utilities ..	1,022	1,159	800
24.0	Printing and reproduction	140	159	100
25.0	Other services	28,253	32,044	17,920
26.0	Supplies and materials	11,443	12,978	5,970
31.0	Equipment	3,291	3,733	2,600
32.0	Lands and structures	3,235	3,669	2,500
42.0	Insurance claims and indemnities	38	43	71
99.0	Subtotal, direct obligations	88,320	81,611	45,891
99.9	Reimbursable obligations	14	--	--
99.9	Total obligations	88,334	81,611	45,891

FOREST SERVICE REFORESTATION TRUST FUNDS

PERSONNEL SUMMARY

Identification code:	1983 actual	1984 est.	1985 est.
20-8046-0-7-302			
Direct:			
Total number of permanent positions	1,185	734	357
Total compensable workyears:			
Full-time equivalent employment	1,908	1,208	587
Full-time equivalent of overtime			
and holiday hours	76	48	33
Average ES salary	62,655	64,530	66,470
Average GS grade	8.29	8.29	8.27
Average GS salary	19,560	20,180	20,060
Average salary of ungraded positions ...	17,500	18,150	18,800
Reimbursable:			
Total number of permanent positions	1	--	--
Total compensable workyears:			
Full-time equivalent employment	1	--	--
Full-time equivalent of overtime			
and holiday hours	--	--	--
Average ES salary	--	--	--
Average GS grade	--	--	--
Average GS salary	--	--	--
Average salary of ungraded positions ...	--	--	--

HUMAN RESOURCE PROGRAMS

Objective: To provide human and natural resource benefits through administering and hosting programs in work, training and education for the unemployed, the underemployed, the elderly, the young, and others with special needs.

Program description: The Forest Service participates in cooperative employment programs such as those authorized by the Job Training Partnership Act of 1982 (P.L. 97-300), the Youth Conservation Corps Act of 1970 (P.L. 91-378) as amended, the Older Americans Act of 1965 (P.L. 89-73) as amended, and programs for improvement of living conditions in communities and rural areas through technical forestry assistance. Over 72,000 people are expected to participate in the Forest Service administered employment and volunteer programs during fiscal year 1984.

Job Corps

Under the provisions of the Job Training Partnership Act of 1982, in agreement with the Department of Labor, the Forest Service operates 18 Job Corps Civilian Conservation Centers providing basic education and job training to disadvantaged youth. In fiscal year 1983, 8,756 young men and women participated in the program. A minimal decrease in participation is expected in the FY 1984 program. During fiscal year 1983, 76 percent of Job Corps graduates were placed in jobs, the military, or in school. In addition to acquiring job skills, Job Corps participants accomplished work valued at \$17.6 million in fiscal year 1983.

Youth Conservation Corps

The Youth Conservation Corps (YCC) is a summer employment program for young men and women, age 15 through 18, who work, learn and earn together by doing projects that further the development and conservation of natural resources.

For fiscal year 1983, the Forest Service of the Department of Agriculture, the Fish and Wildlife Service and the National Park Service of the Department of the Interior were authorized under the provisions of Public Law 93-408, the YCC Act, and the Interior and Related Agencies Appropriation Act, which appropriated and transferred \$3,400,000 to the "National Forest System" for high priority projects to be carried out as if authorized by Public Law 93-408.

The program served 2,426 young people. Of the participants, 16 percent were minorities and 47 percent were women. They accomplished 394 person-years of work valued at \$4.8 million with a return of \$1.41 on every YCC dollar. For fiscal year 1984, about 2,200 young people are expected to participate in a \$3.3 million program. Funding will be provided by benefitting Forest Service programs. Conservation work valued at about \$4.0 million will be carried out.

The YCC program has successfully served its intended purpose. However, due to both budgetary constraints and the need to emphasize programs targeted for the disadvantaged and the unemployed, a YCC program is not proposed for fiscal year 1985.

Senior Community Service Employment Program

The Forest Service, in cooperation with the Department of Labor, sponsors the Senior Community Service Employment Program (SCSEP), which is authorized under Title V of the Older Americans Act. The SCSEP has three fundamental purposes: (1) community service to the public, (2) part-time employment and supplemental income, and (3) training and transition of participants to the private sector labor market. The program employs economically disadvantaged persons 55 and older and seeks to foster a renewed sense of self-worth and community involvement among traditionally poor and hard-to-employ older individuals.

The Forest Service's interagency agreement for July 1, 1982 to June 30, 1983, provided \$16.8 million which employed 5,107 persons (21 percent minorities and 35 percent women). Participants accomplished 2,189 person-years of work valued at \$26.2 million. This meant the Government realized a return of \$1.56 for each dollar invested. During the July 1, 1983 through June 30, 1984 program, it is anticipated that 5,625 seniors will be employed with funding of \$21 million.

Volunteers in the National Forests

The Volunteers in the National Forests Act of 1972, as amended, provides for assistance in the protection and development of natural resources at nominal costs. In fiscal year 1984, 48,000 volunteers are expected to contribute \$22 million worth of conservation work. This compares with over \$21 million worth of work contributed by 44,212 volunteers in fiscal year 1983.

Hosted Programs

The Forest Service also serves as a host agency by providing work opportunities for programs administered by State and local governments. In fiscal year 1984, about 1,000 person-years of work valued at \$12 million are expected from 8,000 people participating in hosting arrangements. In fiscal year 1983, 908 person-years of work was accomplished, valued at \$11.2 million. Over 6,600 people participated in these programs.

Table 1a

SUMMARY OF HUMAN RESOURCE PROGRAMS
PROJECTED FISCAL YEAR 1983

Activity	Program Funding (Dollars in millions)	Value of Work Accom- plished	Number of Participants	Percent Women	Minority	Person- Years Accom- plished	Dollar Invest- ment Return
Youth Conservation Corps	\$ 3.4	\$ 4.8	2,426	47	16	394	\$ 1.41
Job Corps	54.4	17.6	8,756	9	59	3,866	--
Senior Community Service Employment Program ^{1/}	16.8	26.2	5,107	35	21	2,189	1.56
Volunteers	Unfunded	21.1	44,212	30	10	1,700	--
Hosted Programs	Unfunded	11.2	6,678	26	33	908	--
TOTAL	\$ 74.6	\$ 80.9	67,179	--	--	9,057	--

^{1/} Statistics are for the program period July 1, 1982 through June 30, 1983.

Table 1b

**SUMMARY OF HUMAN RESOURCE PROGRAMS
PROJECTED FISCAL YEAR 1984**

Activity	Program Funding (Dollars in millions)	Value of Work Accom- plished	Number of Participants	Percent Women	Minority	Person- Years Accom- plished	Dollar Invest- ment Return
Youth Conser- vation Corps	\$ 3.3	\$ 4.0	2,200	47	18	350	\$ 1.21
Job Corps	55.8	17.8	8,500	10	60	3,866	--
Senior Community Service Employment Program 1/	21.1	32.7	5,625	37	22	2,375	1.55
Volunteers	Unfunded	22.0	48,000	35	15	1,800	--
Hosted Programs	Unfunded	12.0	8,000	40	31	1,000	--
TOTAL	\$ 80.2	\$ 88.5	72,325	--	--	9,391	--

1/ Projections are for the program period July 1, 1983 through June 30, 1984.

Table 1c

SUMMARY OF HUMAN RESOURCE PROGRAMS
PROJECTED FISCAL YEAR 1985

Activity	Program Funding (Dollars in millions)	Value of Work Accom- plished	Number of Participants	Percent Women	Minority	Person- Years Accom- plished	Dollar Invest- ment Return
Youth Conser- vation Corps <u>1/</u>	--	--	--	--	--	--	\$ --
Job Corps	55.1	\$ 17.5	8,000	9	62	3,866	--
Senior Community Service Employment Program <u>2/</u>	20.9	32.4	5,600	37	22	2,350	1.55
Volunteers	Unfunded	23.0	50,000	40	20	2,000	--
Hosted Programs	<u>Unfunded</u>	<u>13.0</u>	<u>9,000</u>	<u>45</u>	<u>35</u>	<u>1,100</u>	<u>--</u>
TOTAL	\$ 76.0	\$ 85.9	72,600	--	--	9,316	--

1/ A YCC Program is not proposed for 1985.

2/ Projections are for the program period of July 1, 1984 through June 30, 1985.

Table 2a

Work Accomplishment by Human Resource Programs
for Selected Activities

FY 1983 Actual

Activities and Unit of Measure	VOLUNTEERS	YCC	SCSEP	OTHER	TOTAL
Recreation Construction and Rehabilitation (PAOT)	2,860	1,402	2,533	78	6,873
Recreation Management (PAOT days)	2,801,324	812,590	4,518,839	317,107	8,449,860
Fish and Wildlife Habitat Improvement (Acres equiv.)	3,147	1,157	2,028	5,748	12,080
Range Management (Acres)	672	11,025	6,938	16,287	34,922
Reforestation (Acres) (Estimated)	690	260	600	1,800	3,350
Timber Stand Improvement (Acres) (Estimated)	50	900	590	3,800	5,340
Water and Soil Resource Improvement (Acres)	38	35	11	186	270
Property Boundary Location (Miles)	3	3	4	1	11
Trail Construction and Re- construction (Miles)	239	162	18	105	524
Fuel Treatment Management (Acres)	117	87	390	697	1,291

Table 2b

Work Accomplishment by Human Resource Programs
for Selected Activities

FY 1984 Estimate

Activities and Unit of Measure	VOLUNTEERS	YCC	SCSEP	OTHER	TOTAL
Recreation Construction and Rehabilitation (PAOT)	3,000	1,150	3,200	80	7,430
Recreation Management (PAOT days)	3,000,000	670,000	5,600,000	340,000	9,610,000
Fish and Wildlife Habitat Improvement (Acres equiv.)	3,300	950	2,500	6,000	12,740
Range Management (Acres)	700	9,100	8,600	17,000	35,400
Reforestation (Acres) (Estimated)	700	200	750	1,900	3,550
Timber Stand Improvement (Acres) (Estimated)	50	750	700	4,000	5,500
Water and Soil Resource Improvement (Acres)	40	30	15	200	285
Property Boundary Location (Miles)	3	3	5	1	12
Trail Construction and Re- construction (Miles)	250	130	20	100	500
Fuel Treatment Management (Acres)	120	70	380	1,800	2,370

Table 2c

Work Accomplishment by Human Resource Programs
for Selected Activities

FY 1985 Estimate

Activities and Unit of Measure	1/ YCC		SCSEP	OTHER	TOTAL
	VOLUNTEERS				
Recreation Construction and Rehabilitation (PAOT)	3,100	--	3,500	90	6,690
Recreation Management (PAOT days)	3,000,000	--	5,600,000	400,000	9,000,000
Fish and Wildlife Habitat Improvement (Acres equiv)	3,500	--	2,500	7,000	13,000
Range Management (Acres)	750	--	8,600	19,000	28,350
Reforestation (Acres) (Estimated)	750	--	750	2,000	3,450
Timber Stand Improvement (Acres) (Estimated)	50	--	700	4,400	5,150
Water and Soil Resource Improvement (Acres)	40	--	15	200	255
Property Boundary Location (Miles)	3	--	5	1	9
Trail Construction and Re- construction (Miles)	260	--	20	120	400
Fuel Treatment Management (Acres)	130	--	500	800	1,430

1/ A YCC program is not proposed for 1985.

JUSTIFICATION FOR CHANGE IN LANGUAGE

Proposed change in language:

NATIONAL FOREST SYSTEM

For necessary expenses of the Forest Service, not otherwise provided for, for management, protection, improvement, and utilization of the National Forest System, and for liquidation of obligations incurred in the preceding fiscal year for forest fire protection and emergency rehabilitation, including administrative expenses associated with the management of funds provided under the heads "Forest Research", "State and Private Forestry", "National Forest System", "Construction", and

1. "Land Acquisition", [and not less than \$3,300,000 for high priority projects within the scope of the approved budget which shall be carried out by Youth Conservation Corps as if authorized by the Act of August 13, 1970, as amended by Public Law 93-408, \$894,041,000.]
2. \$1,036,959,000 of which \$130,295,000 for reforestation and timber stand improvement, cooperative law enforcement and maintenance of forest development roads and trails shall remain available for obligation until September 30, 1986.

The first change removes the reference for the Youth Conservation Corps program. A YCC program is not proposed for 1985.

The second change adds language to continue 2-year status for the above funds. In 1984, a 1983 deferral financed most of these accounts making 1984 language unnecessary. The language proposed for 1985 will reinstate language contained in previous years and approve two-year funding for the above programs.

Proposed change in language:

ADMINISTRATIVE PROVISIONS

1. Delete the following provision:

None of the funds available under this Act shall be obligated or expended to change the boundaries of any region, to abolish any region, to move or close any regional office for research, State and private forestry, and National Forest System administration of the Forest Service, Department of Agriculture, without the consent of the House and Senate Committees on Appropriations and the Committee on Agriculture, Nutrition, and Forestry in the U.S. Senate and the Committee on Agriculture in the U.S. House of Representatives.

This change removes language that restricts the flexibility needed to make changes to improve organization effectiveness and efficiency. The Forest Service will continue to consult with the Appropriations Committees, Committees on Agriculture, Nutrition and Forestry, and individual members of Congress concerned, prior to effecting any such change.

2. Delete the following provision:

None of the funds made available under this Act shall be obligated or expended to adjust annual recreational residence fees to an amount greater than that annual fee in effect at the time of the next to last fee adjustment, plus 50 per centum. In those cases where the currently applicable annual recreational residence fee exceeds that adjusted amount, the Forest Service shall credit to the permittee that excess amount, times the number of years that the fee has been in effect, to offset future fees owed to the Forest Service.

This change is proposed for the following reasons:

The provision is in conflict with the Independent Offices Appropriation Act of 1952 (5 U.S.C. 140) which directs collection of fees based on "fair market value" and has been the basis for fee pricing government-wide for the past 30 years. The Federal Land Policy and Management Act of 1976 also explicitly requires fair market value pricing (43 U.S.C. 1701).

A reduced fee would create a large lease-hold interest. The value of the permit would be substantially increased when selling the residence.

The Forest Service administers over 16,000 recreation residence permits. Credits would be necessary for most permits adjusted over the last 5-10 years. Some permits have not been adjusted for the last 10 years and credits may be required for up to 20 years for such permits.

The provision creates an inconsistency in fee pricing between the Forest Service and the Bureau of Land Management. BLM is using a fair market value system (as required by the Federal Land Policy and Management Act of 1976) while the Forest Service will be under this provision.

3. Delete the following provision:

The appropriation structure for the Forest Service may not be altered without advance approval of the House and Senate Committees on Appropriations.

This change recognizes that the Forest Service has no authority to change the appropriation structure. The House and Senate Committees on Appropriations will continue to be consulted prior to submitting proposed changes.

4. Delete the following provision:

No funds appropriated to the Forest Service shall be transferred to the Working Capital Fund of the Department of Agriculture without the approval of the Chief of the Forest Service.

This change is proposed to eliminate a requirement that intrudes in the working relationships of the Forest Service and the Department of Agriculture. Funding responsibility for the Department's Working Capital Fund is determined by rational formulas and each agency in the Department must pay its fair share of the Fund.

ADMINISTRATIVE PROVISIONS

Appropriations to the Forest Service for the current fiscal year shall be available for: (a) purchase of not to exceed [201] 179 passenger motor vehicles of which [3] 8 will be used primarily for law enforcement purposes and of which [189] 163 shall be for replacement only, acquisition of [217] 184 passenger motor vehicles from excess sources, and hire of such vehicles; operation and maintenance of aircraft, the purchase of not to exceed 4 for replacement only, and acquisition of [49] 45 aircraft from excess sources; (b) services pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed \$100,000 for employment under 5 U.S.C. 3109; (c) uniform allowances for each uniformed employee of the United States Forest Service, not in excess of \$400 annually; (d) purchase, erection, and alteration of buildings and other public improvements (7 U.S.C. 2250); (e) acquisition of land, waters, and interests therein, pursuant to the Act of August 3, 1956 (7 U.S.C. 428a); and (f) for expenses pursuant to the Volunteers in the National Forests Act of 1972 (16 U.S.C. 558a, 558d, 558a note).

[None of the funds available under this Act shall be obligated or expended to change the boundaries of any region, to move or close any regional office for research, State and private forestry, and National Forest System administration of the Forest Service, Department of Agriculture, without the consent of the House and Senate Committees on Appropriations and the Committee on Agriculture, Nutrition, and Forestry in the United States Senate and the Committee on Agriculture in the United States House of Representatives.]

[None of the funds made available under this Act shall be obligated or expended to adjust annual recreational residence fees to an amount greater than that annual fee in effect at the time of the next to last fee adjustment, plus 50 per centum. In those cases where the currently applicable annual recreational residence fee exceeds that adjusted amount, the Forest Service shall credit to the permittee that excess amount, times the number of years that that fee has been in effect, to offset future fees owed to the Forest Service.]

Any appropriation or funds available to the Forest Service may be advanced to the National Forest System appropriation for emergency rehabilitation of burned over lands under its jurisdiction.

Appropriation and funds available to the Forest Service shall be available to comply with the requirements of section 313(a) of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1323 (a)).

[The appropriation structure for the Forest Service may not be altered without advance approval of the House and Senate Committees on Appropriations.]

Funds appropriated to the Forest Service shall be available for assistance to or through the Agency for International Development and the Office of International Cooperation and Development in connection with forest and rangeland research and technical information and assistance in foreign countries.

Funds previously appropriated for timber salvage sales may be recovered from receipts deposited for use by the applicable national forest and credited to the Forest Service Permanent Appropriations to be expended for timber salvage sales from any national forest.

Provisions of section 702(b) of the Department of Agriculture Organic Act of 1944 (7 U.S.C. 2257) shall apply to appropriations available to the Forest Service only to the extent that the proposed transfer is approved by the House and Senate Committees on Appropriations in compliance with the reprogramming procedures contained in House Report 97-942.

[No funds appropriated to the Forest Service shall be transferred to the Working Capital Fund of the Department of Agriculture without the approval of the Chief of the Forest Service.]

Passenger Carrying Vehicles

The Forest Service is essentially a field organization which operates in remote sections of the country. Public transportation is not available in a majority of the locations where transportation is required. There are over 229 million acres within the exterior boundaries of the National Forests and about 726 million acres of State and private forest land within areas covered by cooperative forest programs.

The Forest Service fleet is made up of over 16,000 pieces of equipment ranging from sedans and pickup trucks to bulldozers and motor graders. The Forest Service would operate a greater number of passenger carrying vehicles at less cost and increased energy conservation if it were not for the limitations placed on passenger carrying vehicles by law. The Forest Service utilizes Interagency Motor Pools or commercial rental services to the fullest practical extent when it is cost effective.

Passenger carrying vehicles are used by forest officers in the protection, utilization, management, and development of the National Forests and land utilization projects and in research and law enforcement activities.

Additions

It is proposed to purchase 12 additional passenger carrying vehicles to replace pickup and utility trucks and carryalls because the substitution of these vehicles will save the Government approximately \$8,000 each year.

Replacements

The Forest Service proposes to replace 163 of the 1,174 passenger carrying vehicles now in operation which meet the requirements of having traveled more than 60,000 miles and/or are more than 6 years old.

The request for 4 additions and 4 replacement law enforcement vehicles are for use by the Forest Service criminal investigators. These GSA-obtained Type IV vehicles are necessary to:

1. Provide a adequate system for communications equipment necessary to assure responsiveness and employee safety.
2. Provide a multi-use vehicle which will safely and efficiently haul 600 or more pounds of investigative equipment and simultaneously transport Federal prisoners.
3. Provide security (as compared with a utility vehicle) for expensive investigative equipment such as night viewing devices.
4. Provide adequate separation between Federal prisoners and Federal officers, and provide a safe means of transportation for prisoners.

The Forest Service does not obtain high performance engines, but the remaining components of a Type IV vehicle (suspension and cooling system for weight, electrical system for communications equipment, size and configuration for multipurpose uses) exactly meet the needs of employees hired as criminal investigators. Ordering these components separately would be more costly than ordering the police special with small engine options.

Age Data

<u>Year</u>	<u>Number of Vehicles</u>
1977 and older	178
1978	140
1979	13
1980	316
1981	241
1982	91
1983	125
Total	1,104

Mileage Data

<u>Miles</u>	<u>Number of Vehicles</u>
60,000 and over	219
50,000 to 59,999	114
40,000 to 49,999	176
30,000 to 39,999	197
20,000 to 29,999	178
10,000 to 19,999	68
0 to 9,999	152
Total	1,104

Passenger-Carrying Vehicles and Aircraft

Passenger-carrying vehicles and aircraft funding is not required to purchase aircraft and passenger-carrying vehicles acquired through the Federal Excess Personal Property program for loan to State forestry organizations. Aircraft and passenger-carrying vehicles being used by State forestry organizations are replaced when possible with Federal agency equipment which is excess to Federal agency needs.

Passenger-Carrying Vehicles

Fiscal year 1985 passenger-carrying vehicles replacement and acquisition estimates are 184 vehicles for loan to State forestry organizations through the Federal Excess Personal Property program.

The current fleet composition on loan to fifty States and territories is 211.

Aircraft

Fiscal year 1985 aircraft replacement and acquisition estimates for loan to the fifty states and territories are:

- 11 single-engine reconnaissance aircraft
- 10 twin-engine reconnaissance and cargo aircraft
- 24 helicopters

The current fleet composition on loan to the fifty States and territories is as follows:

- 67 single-engine reconnaissance aircraft
- 18 twin-engine reconnaissance and cargo aircraft
- 46 helicopters

FOREST SERVICE
CONSOLIDATED SCHEDULE OF PERMANENT POSITIONS PAID
FROM FUNDS AVAILABLE TO THE FOREST SERVICE

DETAIL OF PERMANENT POSITIONS

	<u>1983</u> <u>Estimate</u>	<u>1984</u> <u>Estimate</u>	<u>1985</u> <u>Estimate</u>
ES-6	3	3	3
ES-5	5	6	6
ES-4	22	22	22
ES-3	18	17	17
ES-2	7	8	8
ES-1	<u>2</u>	<u>2</u>	<u>2</u>
Subtotal	57	58	58
 GS-17	 2	 2	 2
GS-16	4	4	4
GS/GM-15	220	213	208
GS/GM-14	706	683	669
GS/GM-13	1,815	1,757	1,722
GS-12	3,028	2,931	2,870
GS-11	5,568	5,388	5,280
GS-10	134	130	129
GS-9	6,248	6,048	6,029
GS-8	516	499	498
GS-7	4,378	4,237	4,224
GS-6	2,244	2,172	2,166
GS-5	4,591	4,444	4,430
GS-4	2,813	2,723	2,715
GS-3	1,231	1,191	1,188
GS-2	54	52	52
GS-1	<u>4</u>	<u>4</u>	<u>4</u>
Subtotal	33,556	32,478	32,190
 Positions at rates established by Acts of 6/20/58 and 9/23/59 5 U.S.C. 3104.....	 1	 1	 1
Ungraded (wage grade)			
Total permanent positions.	1,517	1,468	1,456
 Unfilled positions, end of year	 1,228	 1,190	 1,175
Total permanent employment, end of year	33,903	32,815	32,530

BASE CALCULATION

	<u>1984 Appropriation</u>	<u>1984 Pay Act Costs</u>	<u>Change In GSA Space Costs</u> (Dollars in thousands)	<u>1985 Base</u>
Forest Research	\$ 108,555	2,120	-147	110,528
State and Private Forestry	\$ 60,579	624	-105	61,098
National Forest System	\$ 975,519	26,055	-1,685	999,889
Construction	\$ 251,724	5,063	-199	256,588 <u>1/</u>
Land Acquisition	\$ 38,552	79	-5	38,626 <u>1/</u>
Youth Conservation Corp	\$ -0-	--	--	-0-
Acquisition of Lands for National Forests, Special Acts	\$ <u>2/</u> 780	2	--	782
Acquisition of Lands to Complete Land Exchanges	\$ <u>2/</u> 20	--	--	20
Appropriated Trust Fund	\$ <u>2/</u> 90	--	--	90
Range Betterment Fund ..	\$ <u>2/</u> 4,028	--	--	4,028
Permanent Appropriations	\$ <u>2/</u> 363,300	2,419	-173	365,546
Trust Funds	\$ 150,000	2,768	-55	152,713
Reforestation Trust Fund	\$ <u>65,931</u>	<u>--</u>	<u>(-18)</u>	<u>65,931</u>
TOTAL	\$ 2,019,078	39,130	-2,369	2,055,839

1/ The 1985 proposal for Land Acquisition and Construction is justified in the text from a zero base.

2/ No adjustments to the 1985 appropriation are made for indefinite accounts.

National Forest System Appropriations
3-Year Display
(National Forest System)

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
		(Dollars in thousands)	
<u>Region 1</u>			
Beaverhead	\$ 3,920	\$ 3,087	\$ 3,290
Bitterroot	5,220	4,110	4,381
Clearwater	10,014	7,885	8,404
Custer	5,961	4,694	5,003
Deerlodge	3,808	2,999	3,196
Flathead	8,998	7,085	7,552
Gallatin	6,214	4,893	5,215
Helena	4,226	3,328	3,547
Idaho Panhandle	18,451	14,529	15,485
Kootenai	12,032	9,475	10,098
Lewis & Clark	3,843	3,026	3,225
Lolo	10,126	7,974	8,498
Nezperce	9,044	7,122	7,590
Subtotal	101,857	80,207	85,484
Regional Office	<u>24,002</u>	<u>18,900</u>	<u>20,143</u>
Region 1 Total <u>1/</u>	125,859	99,107	105,627
<u>Region 2</u>			
Arapaho-Roosevelt	6,453	5,763	6,092
Bighorn	3,608	3,222	3,406
Black Hills	7,872	7,030	7,432
Grand Mesa, Uncompahgre and Gunnison	5,959	5,322	5,626
Medicine Bow	5,275	4,711	4,980
Nebraska	1,946	1,738	1,837
Pike-San Isabel	5,821	5,198	5,496
Rio Grande	4,053	3,619	3,827
Routt	3,343	2,985	3,156
San Juan	6,607	5,900	6,238
Shoshone	2,637	2,355	2,490
White River	5,373	4,798	5,073
Subtotal	58,947	52,641	55,653
Regional Office	<u>11,634</u>	<u>10,390</u>	<u>10,984</u>
Region 2 Total	70,581	63,031	66,637
<u>Region 3</u>			
Apache-Sitgreaves	9,740	8,994	9,575
Carson	5,376	4,964	5,285
Cibola	6,049	5,586	5,946
Coconino	7,667	7,080	7,537
Coronado	5,597	5,168	5,502
Gila	6,999	6,463	6,880
Kaibab	5,932	5,478	5,831
Lincoln	4,959	4,579	4,875
Prescott	4,253	3,927	4,181
Santa Fe	6,234	5,757	6,128
Tonto	8,115	7,493	7,977
Subtotal	70,921	65,489	69,717
Regional Office	<u>14,179</u>	<u>13,093</u>	<u>13,939</u>
Region 3 Total <u>1/</u>	85,100	78,582	83,656

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
	(Dollars in thousands)		
<u>Region 4</u>			
Ashley	4,257	3,807	4,041
Boise	9,712	8,685	9,218
Bridger-Teton	6,168	5,516	5,854
Caribou	3,065	2,741	2,909
Challis	3,393	3,034	3,220
Dixie	4,314	3,858	4,095
Fishlake	3,291	2,943	3,124
Humboldt	2,757	2,465	2,617
Manti-LaSal	3,694	3,303	3,506
Payette	7,670	6,859	7,280
Salmon	4,359	3,898	4,137
Sawtooth	4,829	4,318	4,584
Targhee	7,027	6,284	6,670
Toiyabe	5,202	4,652	4,938
Uinta	3,275	2,928	3,108
Wasatch-Cache	6,755	6,040	6,412
Subtotal	79,768	71,331	75,713
Regional Office	13,033	11,653	12,370
Region 4 Total <u>1/</u>	92,801	82,984	88,083
<u>Region 5</u>			
Angeles	14,901	12,368	13,612
Cleveland	8,259	6,855	7,544
Eldorado	8,440	7,005	7,710
Inyo	6,893	5,721	6,297
Klamath	14,072	11,680	12,855
Lassen	7,664	6,361	7,001
Los Padres	12,722	10,559	11,621
Mendocino	8,351	6,931	7,628
Modoc	4,767	3,957	4,355
Plumas	11,345	9,416	10,363
San Bernardino	12,030	9,985	10,989
Sequoia	10,130	8,408	9,254
Shasta-Trinity	21,080	17,496	19,256
Sierra	10,133	8,410	9,256
Six Rivers	8,530	7,080	7,792
Stanislaus	9,417	7,816	8,602
Tahoe	10,047	8,339	9,178
Lake Tahoe Basin Mgt. Unit	2,805	2,328	2,562
Subtotal	181,586	150,715	165,875
Regional Office	24,347	20,209	22,241
Region 5 Total	205,933	170,924	188,116
<u>Region 6</u>			
Colville	8,011	6,583	7,185
Deschutes	14,038	11,536	12,590
Fremont	7,058	5,800	6,330
Gifford Pinchot	18,550	15,243	16,637
Malheur	8,318	6,835	7,460
Mt. Baker-Snoqualmie	12,031	9,886	10,790
Mt. Hood	13,566	11,148	12,167
Ochoco	6,278	5,151	5,631
Okanogan	6,880	5,654	6,170
Olympic	8,901	7,314	7,983

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
		(Dollars in thousands)	
<u>Region 6 con't.</u>			
Rogue River	10,104	8,303	9,062
Siskiyou	9,952	8,178	8,926
Siuslaw	10,358	8,512	9,290
Umatilla	7,284	5,986	6,533
Umpqua	10,458	8,594	9,379
Wallowa-Whitman	12,566	10,326	11,270
Wenatchee	11,494	9,445	10,309
Willamette	17,749	14,585	15,918
Winema	6,732	5,532	6,038
Subtotal	200,328	164,611	179,668
Regional Office	27,069	22,244	24,276
Region 6 Total <u>1/</u>	227,397	186,855	203,944
<u>Region 8</u>			
National Forests in Alabama	5,080	4,368	4,631
Caribbean	940	808	857
Chattahoochee-Oconee	6,629	5,700	6,043
Cherokee	5,910	5,082	5,388
Daniel Boone	6,919	5,950	6,308
National Forests in Florida	6,155	5,293	5,611
Francis Marion-Sumter	4,835	4,158	4,408
George Washington	5,145	4,424	4,690
Jefferson	5,297	4,555	4,829
Kisatchie	5,510	4,738	5,023
National Forests in Mississippi	8,749	7,523	7,976
National Forests in North Carolina	8,797	7,565	8,020
Ouachita	11,174	9,609	10,186
Ozark-St. Francis	8,443	7,260	7,697
National Forests in Texas	5,668	4,874	5,167
Subtotal	95,251	81,907	86,834
Regional Office	17,552	15,094	16,000
Region 8 Total <u>1/</u>	112,803	97,001	102,834
<u>Region 9</u>			
Allegheny	4,855	4,120	4,449
Chequamegon	4,671	3,964	4,280
Chippewa	5,062	4,296	4,638
Green Mountain	2,621	2,224	2,402
Hiawatha	5,421	4,600	4,967
Huron-Manistee	5,706	4,842	5,229
Mark Twain	9,038	7,670	8,282
Monongahela	4,780	4,056	4,380
Nicolet	4,463	3,787	4,090
Ottawa	4,648	3,944	4,259
Shawnee	3,360	2,851	3,079
Superior	12,362	10,494	11,326
Wayne-Hoosier	4,774	4,051	4,375
White Mountain	4,039	3,428	3,701
Subtotal	75,800	64,327	69,457
Regional Office	11,884	10,085	10,890
Region 9 Total	87,684	74,412	80,347

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
		(Dollars in thousands)	
<u>Region 10</u>			
Chugach	5,428	4,788	5,721
Tongass-Chatham	4,371	3,856	4,607
Tongass-Ketchikan	4,511	3,980	4,754
Tongass-Stikine	2,831	2,497	2,984
Subtotal	17,141	15,121	18,066
Regional Office	<u>5,605</u>	<u>4,945</u>	<u>5,906</u>
Region 10 Total	22,746	20,066	23,972
Total, Regions	\$1,030,904	872,962	943,216

1/ Forests may not add to Regional total in 1983 column due to rounding.

Construction Appropriations
3-Year Display
(National Forest System)

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
		(Dollars in thousands)	
<u>Region 1</u>			
Beaverhead	\$ 2,873	\$ 2,352	\$ 2,607
Bitterroot	751	615	682
Clearwater	3,268	2,676	2,966
Custer	668	547	606
Deerlodge	1,003	821	910
Flathead	4,298	3,519	3,901
Gallatin	1,866	1,528	1,693
Helena	802	657	728
Idaho Panhandle	6,600	5,404	5,990
Kootenai	6,196	5,073	5,623
Lewis & Clark	924	757	839
Lolo	5,346	4,377	4,852
Nezperce	4,693	3,842	4,259
Subtotal	39,288	32,168	35,656
Regional Office	<u>4,532</u>	<u>3,710</u>	<u>4,113</u>
Region 1 Total <u>1/</u>	43,820	35,878	39,769
<u>Region 2</u>			
Arapaho-Roosevelt	1,279	1,734	1,482
Bighorn	811	1,100	940
Black Hills	1,997	2,708	2,314
Grand Mesa, Uncompahgre and Gunnison	1,643	2,228	1,904
Medicine Bow	1,194	1,619	1,384
Nebraska	7	9	8
Pike-San Isabel	612	830	709
Rio Grande	1,112	1,508	1,289
Routt	1,474	1,998	1,708
San Juan	1,503	2,038	1,742
Shoshone	224	304	260
White River	678	919	786
Subtotal	12,534	16,995	14,526
Regional Office	<u>1,599</u>	<u>2,167</u>	<u>1,853</u>
Region 2 Total	14,133	19,162	16,379
<u>Region 3</u>			
Apache-Sitgreaves	1,822	1,999	1,415
Carson	1,177	1,292	914
Cibola	493	541	383
Coconino	1,156	1,269	898
Coronado	871	956	676

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
		(Dollars in thousands)	
<u>Region 3 con't.</u>			
Gila	1,473	1,616	1,144
Kaibab	1,684	1,848	1,308
Lincoln	367	403	285
Prescott	477	523	370
Santa Fe	1,032	1,132	801
Tonto	1,083	1,188	841
Subtotal	11,635	12,767	9,035
Regional Office	<u>1,403</u>	<u>1,540</u>	<u>1,090</u>
Region 3 Total <u>1/</u>	13,038	14,307	10,125
<u>Region 4</u>			
Ashley	2,022	1,285	1,250
Boise	3,156	2,005	1,951
Bridger-Teton	1,188	755	734
Caribou	885	562	547
Challis	637	405	394
Dixie	2,550	1,620	1,576
Fishlake	667	424	412
Humboldt	96	61	59
Manti-LaSal	816	518	504
Payette	1,898	1,206	1,173
Salmon	2,143	1,361	1,325
Sawtooth	861	547	532
Targhee	1,681	1,068	1,039
Toiyabe	1,569	997	970
Uinta	921	585	569
Wasatch-Cache	1,320	839	816
Subtotal	22,410	14,238	13,851
Regional Office	<u>2,260</u>	<u>1,435</u>	<u>1,400</u>
Region 4 Total <u>1/</u>	24,670	15,673	15,251
<u>Region 5</u>			
Angeles	899	614	711
Cleveland	602	411	476
Eldorado	3,304	2,258	2,614
Inyo	2,823	1,929	2,233
Klamath	3,476	2,375	2,750
Lassen	1,145	782	906
Los Padres	642	439	508
Mendocino	2,577	1,761	2,038
Modoc	2,434	1,663	1,925
Plumas	4,137	2,827	3,272
San Bernardino	1,107	756	876
Sequoia	2,068	1,413	1,636
Shasta-Trinity	5,894	4,027	4,662

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
(Dollars in thousands)			
<u>Region 5 con't.</u>			
Sierra	3,836	2,621	3,034
Six Rivers	2,664	1,820	2,107
Stanislaus	2,795	1,910	2,211
Tahoe	3,641	2,488	2,880
Lake Tahoe Basin Mgt. Unit	363	248	287
Subtotal	44,407	30,342	35,126
Regional Office	<u>5,172</u>	<u>3,535</u>	<u>4,092</u>
Region 5 Total	49,579	33,877	39,218

Region 6

Colville	2,431	2,257	2,852
Deschutes	2,494	2,316	2,925
Fremont	1,891	1,756	2,218
Gifford Pinchot	6,534	6,066	7,664
Malheur	2,403	2,231	2,819
Mt. Baker-Snoqualmie	5,065	4,703	5,941
Mt. Hood	4,335	4,025	5,085
Ochoco	1,271	1,180	1,491
Okanogan	1,385	1,286	1,625
Olympic	4,289	3,982	5,031
Rogue River	1,716	1,593	2,013
Siskiyou	2,641	2,452	3,098
Siuslaw	4,210	3,909	4,938
Umatilla	1,559	1,447	1,829
Umpqua	3,269	3,035	3,834
Wallowa-Whitman	3,343	3,104	3,921
Wenatchee	3,678	3,415	4,314
Willamette	5,039	4,678	5,911
Winema	823	764	965
Subtotal	58,376	54,199	68,474
Regional Office	<u>6,600</u>	<u>6,127</u>	<u>7,742</u>
Region 6 Total <u>1/</u>	64,976	60,326	76,216

Region 8

National Forests in Alabama	1,341	1,343	1,186
Caribbean	85	85	75
Chattahoochee-Oconee	1,124	1,126	994
Cherokee	1,641	1,644	1,451
Daniel Boone	2,286	2,290	2,021
National Forests in Florida	845	847	747
Francis Marian-Sumter	1,201	1,203	1,062
George Washington	2,189	2,193	1,935
Jefferson	2,677	2,682	2,367
Kisatchie	1,946	1,950	1,721
National Forests in Mississippi	962	964	851
National Forests in North Carolina	4,639	4,647	4,101

<u>Forest</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
	(Dollars in thousands)		
<u>Region 8 con't.</u>			
Ouachita	3,000	3,005	2,652
Ozark-St. Francis	1,190	1,192	1,052
National Forests in Texas	1,093	1,095	966
Subtotal	26,219	26,266	23,181
Regional Office	<u>1,966</u>	<u>1,970</u>	<u>1,738</u>
Region 8 Total <u>1/</u>	28,185	28,236	24,919
<u>Region 9</u>			
Allegheny	834	889	826
Chequamegon	1,579	1,683	1,564
Chippewa	2,347	2,502	2,325
Green Mountain	727	775	720
Hiawatha	1,033	1,101	1,023
Huron-Manistee	385	410	381
Mark Twain	1,884	2,008	1,866
Monongahela	2,598	2,769	2,573
Nicolet	1,818	1,938	1,801
Ottawa	997	1,063	988
Shawnee	415	442	411
Superior	3,296	3,513	3,265
Wayne-Hoosier	1,329	1,417	1,316
White Mountain	864	921	856
Subtotal	20,106	21,431	19,915
Regional Office	<u>1,750</u>	<u>1,866</u>	<u>1,733</u>
Region 9 Total	21,856	23,297	21,648
<u>Region 10</u>			
Chugach	1,419	3,463	627
Tongass-Chatham	955	2,331	422
Tongass-Ketchikan	1,406	3,431	621
Tongass-Stikine	1,131	2,760	499
Subtotal	4,911	11,985	2,169
Regional Office	<u>263</u>	<u>642</u>	<u>116</u>
Region 10 Total	5,174	12,627	2,285
Total, Regions	\$ 265,431	243,383	245,810

1/ Forests may not add to Regional total in 1983 column due to rounding.

Forest Level Information Processing System (FLIPS)

A. Background

New laws, such as the National Forest Management Act (NFMA), National Environmental Policy Act (NEPA), and the Forest and Rangeland Renewable Resources Planning Act (RPA), make it necessary to gather, store, manipulate and consider more data, data interrelationships, and program alternatives than ever before. This data, gathered at the District and Forest levels, must be quickly and easily accessible to land managers and planners at these levels, as well as at Regional and National Headquarters. Automated information systems are the only practical means to meet these needs. These systems are particularly essential for conducting advanced analytical procedures such as modeling and simulation, which are now required in Forest Service planning.

In 1980, the Chief of the Forest Service conceptually approved the use of distributed information processing throughout the agency to provide word/text processing, entry and edit of data, and management of local data. The Forest Service conducted several pilot studies and analyses to determine the probable cost and benefits of distributed information processing. One of the apparent advantages shown by these studies was the increased productivity of both the professional and clerical staffs. A National Facility Needs Analysis was conducted to define the specific information processing support needed. Since the most critical needs were in management of the National Forest System, the Chief directed that the analysis concentrate on systems to support this program.

The analysis considered the need for data processing, word processing, electronic mail, and integration of data and textual processing. It developed workload categories, measurement units, and volume projections and identified several alternatives for meeting the agency's information processing requirements. Workload requirements were analyzed for small, medium, and large National Forests. This approach allowed for common analysis of workload but recognized the individual characteristics of organizational units of varying size.

B. Goals and Objectives

To increase the productivity of Forest Service personnel. Distributed information processing will significantly contribute to this goal by:

- standardizing hardware, software, and telecommunications processes
- improving data accuracy
- allowing rapid access to and management of local data by those who collect and store it
- increasing the timeliness and speed of responding to requests for data
- allowing all Forest Service units to communicate up and down the chain of command easily and quickly.

C. Program Description

The alternative selected to best accomplish Forest Service needs was information processing ability at local levels with continued use of the large mainframe processor at the Fort Collins Computer Center for large applications and data bases and for maintaining national systems. Named Forest Level Information Processing System (FLIPS), the system will provide data processing, word processing, electronic mail, data base management, and integration of data and textual processing throughout the agency.

After extensive evaluation and testing of various systems, the system was initiated by award of a contract on July 8, 1983, to Data General Corporation.

During the next 4 years, the Forest Service plans to install approximately 920 systems. This phased schedule will permit the agency to achieve maximum productivity in the shortest amount of time, commensurate with its capability to implement and manage the technology being acquired.

D. Authorization

After the Forest Service had successfully demonstrated the feasibility of distributed processing to USDA's Office of Information Resource Management (OIRM), the General Services Administration (GSA) granted a Delegation of Procurement Authority to the Department of Agriculture for the Forest Service to competitively procure the necessary hardware and software in December 1981.

During the entire project (May 1980 thru July 1983), the analyses, testings, and feasibility studies were repeatedly reviewed and questioned. The questions came from many external sources--the General Accounting Office (GAO), the General Services Administration (GSA), Office of the Inspector General (OIG), the Office of Management and Budget (OMB), the President's Private Sector Survey on Cost Control, and both Congressional Appropriations Subcommittees. In all reviews of the FLIPS project, the Forest Service was encouraged to move forward.

E. Source of Funding Table for Equipment Contract

	FY 1983 <u>Actual</u>	FY 1984 <u>Estimate</u>	FY 1985* <u>Estimate</u>
	(Dollars in thousands)		
Research	\$ 631	500	475
S&PF.....	159	135	125
NFS.....	17,012	14,666	11,595
Construction	3,120	3,313	2,511
Land Acquisition	16	35	--
Permanent & Trust Funds	1,804	1,519	1,159
Transfer Funds	<u>235</u>	<u>197</u>	<u>--</u>
TOTAL	\$ 22,977	20,365	15,865

*In 1983 dollars. The FLIPS contract calls for an escalation clause based on CPI/PPCI. The actual 1985 figures can be expected to be higher than the figures in this table.

F. Status of Installation

- FY 1983: 308 systems were ordered. Three systems were installed in August and September and have been the installation test sites for system generation, installation procedures, and establishment of Service-wide standards and guidelines. Remaining installations began in December, with approximately 30 systems being installed per month. The first systems are being installed in the Chief's Office, every Regional Office, the offices of four Directors of Research Stations, and on selected National Forests and Districts.
- FY 1984: 169 systems will be ordered and installed at a rate of approximately 30 units a month. Some of the 1983 systems will be upgraded.
- FY 1985: 190 systems will be ordered and installed, and some of the installed systems will be upgraded.
- FY 1986: The final 253 systems will be ordered and installed. Some existing systems will be upgraded.

G. Costs and Benefits

The cost/benefit analyses prepared as part of the National Facility Needs Analysis estimated that the cost of hardware and software to implement the recommended alternative would be approximately \$75 million (in 1981 dollars). Two pilot tests of distributed processing have estimated an operational benefit in Region 5 of \$2.8 million a year from office automation systems; and \$235,000 a year Service-wide, from use of data entry and edit equipment.

A Cost Effectiveness Study completed by Region 5 in April 1981, demonstrated the value of having good "before" and "after" workload data. The data measured the costs and benefits of information systems and workload productivity. In addition, it has provided a proven framework for collecting productivity data; and is the basis for the FLIPS benefits collection procedures.

H. Costs

Fiscal and Accounting Management Staff has modified the accounting codes in the Program Attainment and Management Reporting System (PAMARS) to display FLIPS costs in addition to, and separate from, the data processing costs it was gathering. An interim directive has been placed in the Forest Service Manual to explain this process.

	FY 1983 Actual	FY 1984 Estimate	FY 1985 Estimate
	(Dollars in thousands)		
Non-Recurring:			
Site	\$ 3,405	3,602	1,386
Equipment	22,977	20,365	15,865
Procurement	1,400	--	--
Software	--	308	169
Training	154	779	696
Travel	203	451	463
Miscellaneous	82	---	---
Recurring:			
Equipment Lease	4,634	4,634	4,115
Equipment Maintenance ...	2,811	4,120	6,234
Equipment Use	11,553	10,431	10,250
Data Communications	9,179	7,950	5,729
Site	1,891	1,891	1,891
Supplies	2,323	2,973	3,554
Personnel	42,707	45,696	48,895
Total	\$ 103,319	103,200	99,247

DEFINITION OF COSTS

Non-recurring costs - one-time costs incurred to procure the new systems. Site preparation of facilities for the systems, including electrical wiring, communications cables, storage cabinets, and static mats.

Equipment - contract costs to purchase system hardware and software.

Procurement - cost of people, travel, etc. to conduct the procurement.

Software - conversion of existing applications and files, and/or purchase of general-purpose commercial software for installation and use on Forest Service distributed processing facilities.

Training - contract training on new systems.

Travel - to support system installation, technical assistance, and managerial monitoring.

Miscellaneous - printing costs, for example.

Recurring costs - the costs of doing business using the new systems. This is not solely the cost of using the new systems, but includes all automated information processing costs.

Equipment lease - lease of non-FLIPS equipment.

Equipment maintenance - maintenance on all data processing equipment.

Equipment use - use of computer facilities such as the Fort Collins Computer Center.

Data Communication - costs of communications networks and facilities.

Site - lease and maintenance of space where systems are located.

Supplies - for data processing systems.

Personnel - computer specialist, computer technician, computer operator, and communications personnel.

I. Benefits

A sample of the National Forests is being used to provide "before" and "after" workload data to define productivity changes. The baseline data are due in March 1984. Some of the resultant workload data and analyses of productivity changes may be ready to report with the FY 1986 Appropriations Request.

J. Special Interest Areas

House Report No. 97-942, accompanying the FY 1983 Interior and Related Agencies Appropriations Act, requires the Forest Service to submit, along with annual appropriations requests, a report on savings achieved by FLIPS. Specifically, the report is to cover:

1. Personnel
2. Equipment reutilization;
3. Communications; and
4. Other cost avoidances.

There is not a report with the request for FY 85 funds since phase one of the system is presently being installed. The first report should accompany the FY 1986 appropriations request.

Land Management Planning

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), provides legislative direction for Forest Service planning.

The NFMA states that the Secretary of Agriculture should attempt to develop an integrated land and resource management plan for each administrative unit of the National Forest System by 1985. To implement the requirements of the NFMA, regulations were developed to guide land and resource management planning on 191 million acres of the National Forest System. The regulations require integrated planning for all resources, i.e., timber, range, fish and wildlife, water, wilderness, and recreation, as well as coordination of other resources, such as minerals.

The NFMA regulations were revised in 1983 in response to a court decision that the 1979 Roadless Area Review and Evaluation (RARE II) environmental statement and associated procedures were inadequate under the National Environmental Policy Act (NEPA). The revision subjects to re-evaluation, through Forest planning, areas which remain essentially roadless and undeveloped and have not been designated by Congress as wilderness or for nonwilderness uses by law.

The planning process requires a continuous flow of information and management direction among the three Forest Service administrative levels: national, regional, and designated Forest planning areas. Management direction will be based principally upon locally derived information about production capabilities. It will reflect resource needs and conditions pertinent to all levels, and become increasingly specific as planning progresses from the national to regional levels and from the Regions to the National Forests.

There are nine Regional Guides reflecting the 1980 RPA Program. Although all Regional Guides have been completed, five of these were not, or will not be, published until FY 1984. The Regional Guides include management decisions in three areas: (1) establishing standards and guidelines, (2) reflecting goals and objectives of the RPA Program that are consistent with resource capabilities, and (3) displaying tentative resource objectives for each National Forest.

All Forest Plans are in various stages of development, but most have been delayed to accommodate the required re-evaluation of roadless and undeveloped areas recommended for wilderness and nonwilderness uses.

The Forest Plans constitute the Land and Resource Management Plans developed in accordance with the NFMA and include management planning for all resources. Resource inventories determine the capability or production potential of Forest lands. This Forest level information is used in preparing Forest plans as well as the 1985 RPA Program. National level RPA objectives will be evaluated by each Forest to determine if they are compatible with resource supplies, demand levels, economic efficiency, community stability, and potential environmental effects.

Linkage development will tie the current Forest planning effort with the 1985 RPA Program. The tie with program development and budgeting will occur as individual Forests implement their plans and as the 1985 Program is tied and implemented with the 1986 budget. The following general requirements outline the linkage between RPA and land management planning at the Regional and National Forest levels:

a. The 1980 Program provides national direction and Regional output levels to the Regions for development of Regional Guides and Forest Plans. The regions must meet or exceed the RPA output levels unless negotiated with the Chief.

b. The Regional Guides disaggregate the Regional 1980 RPA output levels to individual National Forests.

c. The National Forests will develop their Forest alternatives in conformance with the NFMA regulations, the Chief's direction, and the direction contained in the Regional Guide. The 1985 RPA Program development process also provides direction to the Forests on information and analysis requirements.

d. The National Forests' preferred alternatives should meet or exceed the 1980 RPA output levels from the Regional Guides unless negotiated with the Regional Forester.

e. The 1985 RPA Program is based on data from Forest planning, State forestry resource planning, and research planning.

f. The Regions will use Forest alternative information to build Regional alternatives. The Regional alternatives will be the information base for development of national alternatives and a preferred national program.

g. The approved 1985 RPA Program may necessitate revision or amendment to the Regional Guides and Forest Plans.

Funding levels and the re-evaluation of roadless and undeveloped areas required us to review the scheduling of Forest Plans. Although Forest Plan data is available for development the 1985 RPA Program, completion of some Forest Plans will be delayed.

Actual and projected accomplishments include:

	<u>FY 1983 Actual</u>	<u>FY 1984 Estimate</u>	<u>FY 1985 Estimate</u>
Forest Plans to be prepared under NFMA (121 adm. units):			
Draft Forest Plans	24	23	75 <u>1/</u>
Final Forest Plans	4	10	64 <u>1/</u>
Number of Forest Plans Appealed	2	3	
Final Regional Guides	4	5	
Number of Final Guides Appealed	1	2	

1/ Includes Lake Tahoe Basin Management Unit

Source of Funding Table

	<u>FY 1983 Actual</u>	<u>FY 1984 Estimate</u>	<u>FY 1985 Estimate</u>
	(Dollars in thousands)		
National Forest System	\$ 20,776	22,371	20,989
Construction	6,029	5,949	6,050
Tongass Timber Supply Fund	145	58	58
Transfer Funds	<u>76</u>	<u>110</u>	<u>--</u>
Total	\$ 27,026	28,488	27,097

UNITED STATES DEPARTMENT OF AGRICULTURE

Funds Available for Research and Control of Gypsy Moths
Tussock Moth, and Southern Pine Beetle

AGENCY	Fiscal Year		
	1983	1984	1985
	(Dollars in Thousands)		
<u>Gypsy Moth:</u>			
<u>Research:</u>			
Agricultural Research Service	\$ 1,137	1,150	1,175
Cooperative State Research Service	337	337	337
Forest Service	1,478	2,881	2,650
Total, Gypsy Moth Research	<u>2,952</u>	<u>4,368</u>	<u>4,162</u>
<u>Control:</u>			
Forest Service	3,845	3,513	80
Animal and Plant Health Inspection			
Service	5,175	5,175	3,374
Subtotal, Gypsy Moth Control	<u>9,020</u>	<u>8,688</u>	<u>3,454</u>
Total, Gypsy Moth Research and Control	11,972	13,056	7,616
<u>Tussock Moth:</u>			
<u>Research:</u>			
Forest Service	622	660	755
<u>Control:</u>			
Forest Service	<u>239</u>	<u>936</u>	<u>276</u>
Total, Tussock Moth Research and Control	861	936	1,031
<u>Southern Pine Beetle:</u>			
<u>Research:</u>			
Cooperative State Research Service	73	73	73
Forest Service	2,230	2,298	2,023
Allocation to Cooperative State			
Research Service	175	175	175
Subtotal, Forest Service Research	<u>2,405</u>	<u>2,473</u>	<u>2,198</u>
<u>Control:</u>			
Forest Service	<u>779</u>	<u>845</u>	<u>450</u>
Total, Southern Pine Beetle Research and			
Control	3,257	3,391	2,721
Totals, All Programs:			
Research	6,052	7,574	7,188
Control	10,038	9,809	4,180
Total	<u>\$ 16,090</u>	<u>17,383</u>	<u>11,368</u>

